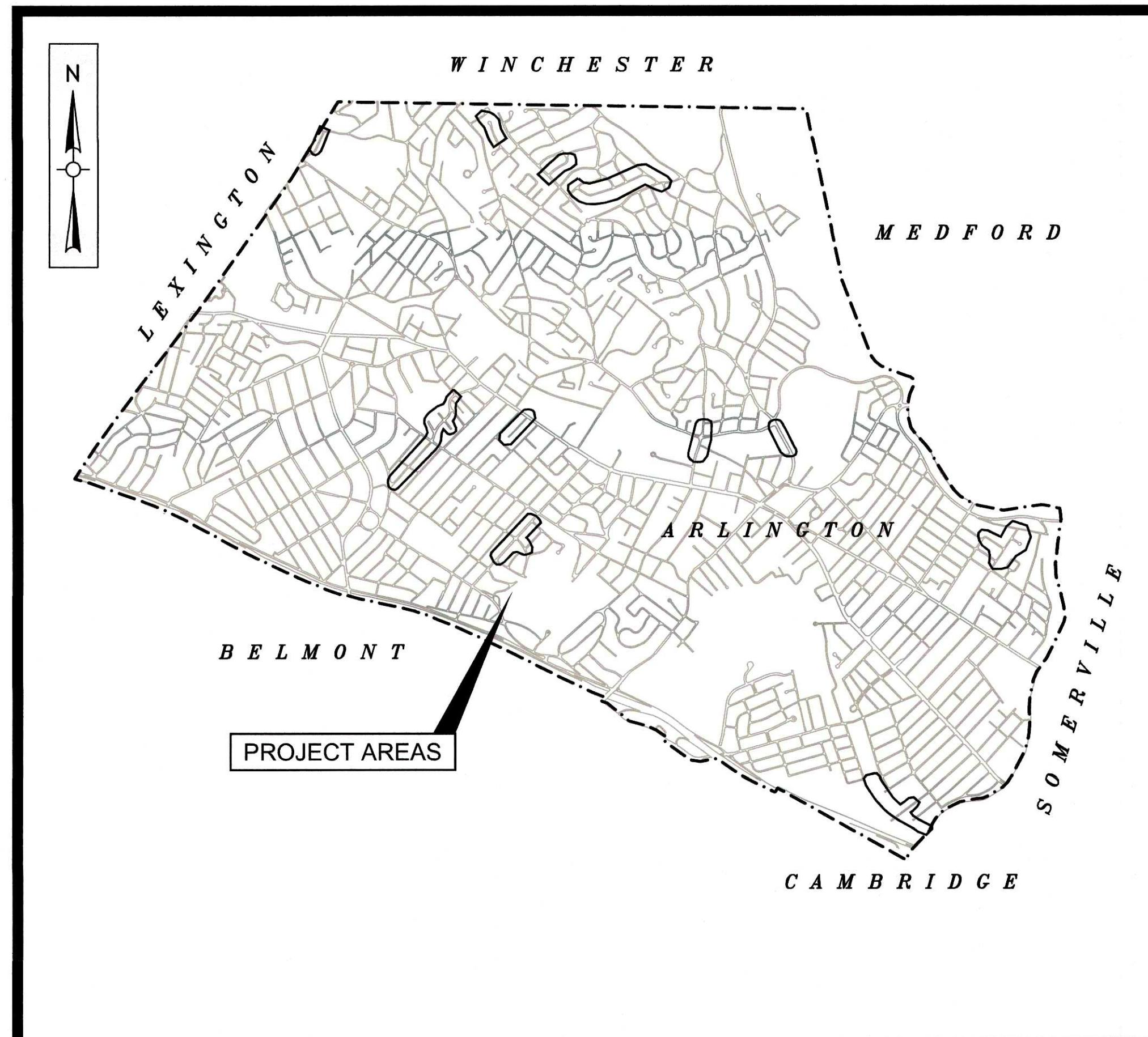


**TOWN OF ARLINGTON, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS  
51 GROVE STREET, ARLINGTON, MA. 02476**



**LOCUS MAP**  
SCALE: 1"=2000'

**DRAWING INDEX**

<u>SHEET</u>	<u>TITLE</u>
G-1	ABBREVIATIONS, LEGENDS, AND NOTES
D-1	DETAILS I
D-2	DETAILS II
D-3	MYSTIC STREET SIPHON DETAILS AND MAP VIEW
D-4	CONSTRUCTION ZONE SAFETY PLAN
C-1	BASE BID MYSTIC STREET SIPHON PLAN AND PROFILE
C-2	BASE BID MYSTIC STREET SIPHON SECTION VIEWS
C-3	BASE BID MYSTIC STREET SIPHON SERVICE CONNECTION
C-4	ALTERNATE BID NO. 1 PLANS AND WORK TABLES
C-5	ALTERNATE BID NO. 1 PLANS AND WORK TABLES
C-6	ALTERNATE BID NO. 2 PLANS AND WORK TABLES
C-7	ALTERNATE BID NO. 3 PLANS AND WORK TABLES
C-8	ALTERNATE BID NO. 4 PLANS AND WORK TABLES

**PHASE #10 SANITARY  
SEWER REHABILITATIONS**

**BID INVITATION NO. 18-32**

**MWRA III LOCAL FINANCIAL  
ASSISTANCE PROGRAM PROJECT  
#WRA-P9-01-3-984**

**MICHAEL W. RADEMACHER, P.E.  
DIRECTOR OF PUBLIC WORKS**

**JUNE 2018**



**Weston & Sampson<sup>SM</sup>**

Weston & Sampson Engineers, Inc.  
Five Centennial Drive, Peabody, MA 01960

## LEGEND

DESCRIPTION	EXISTING	PROPOSED
SANITARY SEWER	— S —	— 8" PVC —
WATER MAIN	— W —	— 6" W DI —
STORM DRAIN	— D —	— 18" D RCP —
GAS	— G —	— 4" G —
ELECTRIC	— E —	— E —
TELEPHONE	— T —	— T —
HOUSE CONNECTION		6" HOUSE CONN (TYP)
SANITARY SEWER MANHOLE	◎	● SMH
STORM DRAIN MANHOLE	◎	● SDMH
ELECTRICAL MANHOLE	○	● EMH
TELEPHONE MANHOLE	○	● TMH
CLEANOUT	○	● CO
CATCH BASIN	□	■ CB
HYDRANT	●	●
GATE VALVE	■	■
CHECK VALVE	●	●
CURB STOP	●	●
BUTTERFLY VALVE	●	●
CAP OR PLUG	—	—
GAS GATE VALVE	■	■
UTILITY POLE	●	●
GUY POLE	●	●
LIGHT POST	●	●
EDGE OF PAVEMENT		
CURB	—	—
SIDEWALK	—	—
STONE WALL	○○○○○○	○○○○○○
RETAINING WALL	RET WALL	RET WALL
FENCE	— X —	— X —
INDIVIDUAL DECIDUOUS TREE	○	○
INDIVIDUAL EVERGREEN TREE	*	*
TREE LINE	~~~~~	~~~~~
SURVEY MARKER	S □ S	
PROPERTY LINE	S — P — S	
EASEMENT LINE	— T — T —	— T — T —
LIMIT OF WORK	○ — ○ —	— — — —
SPOT ELEVATIONS	x 141.5	x 141.5
HOUSE NUMBER	#35	
FLOOR ELEVATION	FL=56.7	
SILL ELEVATION	S=56.7	
WETLAND	— ↓ — ↓ —	
WETLAND FLAGS	— 1 — 2 —	
GUARD POST	△	▲
BOLLARD	○ B	● B
SIGN	—	
BENCH MARK	●	
TEST PIT	TP 1	TP-1
GROUNDWATER MONITORING WELL	WS-1	WS-1
HAY BALES	— · · · —	
ROCK OUTCROP	● H ●	

## ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BC	BITUMINOUS CONCRETE
BIT	BITUMINOUS
BLDG	BUILDING
BM	BENCH MARK
CATV	CABLE TELEVISION
CB	CATCH BASIN
CC	CONCRETE CURB
CI	CAST IRON
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CU FT	CUBIC FEET
CY	CUBIC YARD
D	STORM DRAIN, DEPTH FROM RIM TO INVERT
DI	DROP INLET, DUCTILE IRON
DIA	DIAMETER
DMH	DRAIN MANHOLE
DWG	DRAWING
E	EAST, ELECTRIC
EA	EACH
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FT	FEET, FOOT
G	NATURAL GAS
GC	GRANITE CURB
HC	HOUSE CONNECTION
HORIZ	HORIZONTAL
HP	HIGH PRESSURE
HYD	FIRE HYDRANT
I	INVERT
INV	INVERT
ID	INSIDE DIAMETER
LB	POUND
LF	LINEAR FEET
LS	LUMP SUM
MAX	MAXIMUM
MB	MAIL BOX
MH	MANHOLE
MassDOT	MASSACHUSETTS DEPARTMENT OF TRANSPORTAION
MIN	MINIMUM
MISC	MISCELLANEOUS
MWRA	MASSACHUSETTS WATER RESOURCES AUTHORITY
N	NORTH
NE	NORTH EAST
NW	NORTH WEST
NO OR #	NUMBER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
P	PROPERTY LINE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
RC	REINFORCED CONCRETE PIPE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT-OF-WAY
S	SEWER, SOUTH
SE	SOUTH EAST
SF	SQUARE FEET
SPEC	SPECIFICATIONS
SQ FT	SQUARE FEET
SS	SEWER SERVICE, STAINLESS STEEL
STA	STATION
STL	STEEL
SW	SIDEWALK, SOUTH WEST
T	HYDROSTATIC THRUST, TELEPHONE
TBM	TEMPORARY BENCH MARK
THK	THICK (NESS)
TYP	TYPICAL
UP	UTILITY POLE
VC	VITRIFIED CLAY
VERT	VERTICAL
VF	VERTICAL FEET
W	WATER, WEST
W/	WITH
W/O	WITHOUT

## CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL CALL DIGSAFE AT 1-888-344-7233 AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIGSAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION. THE TOWN OF ARLINGTON IS NOT A MEMBER OF DIGSAFE. CONTRACTOR SHALL NOTIFY TOWN OF ARLINGTON WATER AND SEWER DIVISION AT 781-316-3310 FOR MARK-OUT OF TOWN SEWER, WATER AND DRAINAGE INFRASTRUCTURE. MWRA IS NOT A MEMBER OF DIGSAFE. CONTRACTOR SHALL NOTIFY KEVIN MCKENNA AT 617-305-5956 FOR MARK-OUT OF MWRA INFRASTRUCTURE.
- LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.
- ALL UTILITY CONFLICT NOTES ARE APPROXIMATE AND MAY NOT INCLUDE ALL POTENTIAL CONFLICTS. THESE NOTES DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO BEGINNING THE WORK.
- TEST PITS TO LOCATE EXISTING UTILITIES MAY BE ORDERED BY THE ENGINEER.
- STONE WALLS, FENCES, MAIL BOXES, SIGNS, CURBS, LIGHT POLES, ETC. SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK, UNLESS OTHERWISE INDICATED. ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.
- ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
- ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES OR WITHIN 100 FEET OF WETLANDS, 50 FEET OF INTERSECTIONS OR 10 FEET OF DRIVEWAYS.
- SEWER TRENCHES MAY BE EXCAVATED WIDER THAN THE 'LIMIT OF EXCAVATION AND PAYMENT FOR EARTH EXCAVATION' ABOVE THE 'LINE OF NARROW TRENCH LIMIT.' ANY SUCH ADDITIONAL EXCAVATION SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL NOT BE MEASURED FOR PAYMENT.
- BELLOW THE 'LINE OF NARROW TRENCH LIMIT' THE TRENCH SHOULD NOT BE EXCAVATED BEYOND THE TRENCH WIDTH 'W'. IF MATERIAL IS LOOSEND OR REMOVED BEYOND THE ABOVE MENTIONED LIMITS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE CRUSHED STONE FOR THE FULL WIDTH OF THE TRENCH AT NO ADDITIONAL COST TO THE OWNER.
- OPENINGS FOR PIPE IN PRECAST MANHOLE BASES SHALL BE CAST IN THE REQUIRED LOCATIONS DURING MANHOLE MANUFACTURE. FIELD CUT OPENINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.
- CONTRACTOR SHALL MAINTAIN EXISTING FLOWS IN THE SYSTEM, BYPASSING AS NECESSARY TO PREVENT SURCHARGING, AS APPROVED OR REQUIRED BY THE ENGINEER.
- NO PAYMENT SHALL BE MADE FOR ADDITIONAL PIPE CLEANING. CONTRACTOR MUST REFER TO TELEVISION INSPECTION LOGS AND VIDEOS TO DETERMINE EXTENT OF CLEANING REQUIRED.
- FORM BRICK INVERTS IN MANHOLES WITH BRICK ON EDGE TO A DEPTH OF 0.8 INSIDE DIAMETER OF PIPE AND FORM A 1 INCH SLOPED BENCH WITH BRICK FLAT. INVERT SHALL BE SLOPED UNIFORMLY BETWEEN INLET AND OUTLET PIPE AND SHALL BE FORMED AND FILLED AS REQUIRED TO DIRECT THE FLOW AS INDICATED AND TO PREVENT DEPOSITION OF SOLIDS.
- IN PAVED AREAS THE TOP OF THE MANHOLE COVER SHALL BE SET FLUSH WITH THE PAVED SURFACE. IN OTHER AREAS THE TOP OF THE COVER SHALL BE SET AS SHOWN ON THE DRAWINGS, OR AS REQUIRED BY THE ENGINEER.
- ALL STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT THE END OF EACH WORKING DAY BY BACKFILLING OR COVERING WITH STEEL PLATES.
- CONTRACTOR SHALL REPLACE ALL ACTIVE SEWER SERVICES ENCOUNTERED DURING EXCAVATION TO THE PROPERTY LINE UNLESS OTHERWISE INDICATED.
- CONTRACTOR SHALL TELEVISE ALL SEWER SERVICES ENCOUNTERED DURING EXCAVATION FROM THE PROPERTY LINE TO THE BUILDING PRIOR TO REINSTATING LATERAL CONNECTIONS. RECORDING SHALL BE PROVIDED AT TIME OF THE INSPECTION.
- ALL SIDEWALKS SHALL BE MAINTAINED FREE OF DEBRIS AND BLOCKAGES OR SHALL BE BARRICADED AND SUITABLE SAFETY BARRIERS INSTALLED.
- CONTRACTOR SHALL PRODUCE AND DISTRIBUTE DOOR-TO-DOOR ABUTTER NOTIFICATION LETTERS AT LEAST TWO (2) WORKING DAYS PRIOR TO ALL WORK ITEMS. NOTIFICATION LANGUAGE SHALL BE APPROVED BY THE OWNER PRIOR TO DISTRIBUTION.
- WORK HOURS OF 9:00 A.M. TO 3:00 P.M. MAY BE REQUIRED ON MYSTIC STREET, GRAY STREET, SPRING STREET, NORTH UNION STREET, HIGHLAND AVENUE, SUMMER STREET, AND MILL STREET.

## GENERAL NOTES:

- PLANS ILLUSTRATE APPROXIMATE LOCATIONS OF MANHOLES AND SEWERS. REFER TO THE TABLES ON EACH SHEET FOR THE APPROXIMATE LINEAR FEET OF SEWER BETWEEN MANHOLES AND THE APPROXIMATE STATION LOCATIONS OF REHABILITATIONS. SEE TELEVISION INSPECTION LOGS IN THE SPECIFICATIONS FOR MORE INFORMATION. ALL LOCATIONS SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
- SEE MANHOLE AND TELEVISION INVESTIGATION LOGS IN THE SPECIFICATIONS FOR MORE INFORMATION. MANHOLE DEPTHS AND DIAMETERS ARE APPROXIMATE.
- EXCAVATION SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
- CONTRACTOR SHALL NOTE THE DATES ON WHICH THE MANHOLE AND PIPELINE TELEVISION INSPECTIONS WERE COMPLETED. THE DATES ARE SHOWN ON EACH LOG INCLUDED IN THE SPECIFICATIONS.
- IN SITUATIONS WHERE WORK IS LOCATED OFF A PUBLIC STREET, THE 'STREET / LOCATION' FIELD OF THE TABLE INDICATES THE CLOSEST STREET.
- CONTRACTOR SHALL PROVIDE ALL PROJECT VIDEO FILES ON AN EXTERNAL HARD DRIVE AT THE CONCLUSION OF THE PROJECT AS DESCRIBED IN SPECIFICATION SECTION 01331 DOCUMENTATION.
- CONTRACTOR SHALL NOT ALLOW SAND, SILT OR OTHER SITE RUNOFF TO ENTER CATCH BASINS. ANY DEBRIS ENTERING SYSTEM DURING CONSTRUCTION SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
- MANHOLES AND LINE SEGMENTS WITH WORK TO BE PERFORMED ARE BOLDED ON THE PLANS. WHERE THERE IS A DISCREPANCY BETWEEN THE BOLDED MANHOLE/LINE SEGMENT AND THE WORK TABLES, THE WORK TABLES SHALL CONTROL.
- WHERE THERE IS A DISCREPANCY BETWEEN THE SPECIFICATIONS AND THE WORK TABLES, THE WORK TABLES SHALL CONTROL.
- THE SCOPE OF WORK OF THE BASE BID INCLUDES APPROXIMATELY: 60 LINEAR FEET OF PIPE BURSTING (TWO (2) PARALLEL 8-INCH CAST IRON SIPHON BARRELS APPROXIMATELY 30 LINEAR FEET); INSTALLATION OF APPROXIMATELY 134 LINEAR FEET OF HDPE SIPHON PIPE; REPLACEMENT OF 40 LINEAR FEET OF 6-INCH GRAVITY SEWER PIPE; REPLACEMENT OF TWO (2) SEWER SIPHON STRUCTURES; SET-UP OF A TEMPORARY SEWER BYPASS SYSTEM FOR THE SIPHON REPLACEMENT; AND OTHER RELATED TASKS IN THE TOWN OF ARLINGTON, MASSACHUSETTS.
- THE SCOPE OF WORK OF THE ALTERNATE BID NO. 1 INCLUDES APPROXIMATELY: 26 LINEAR FEET OF OPEN CUT POINT REPAIRS OF SANITARY SEWERS AT TWO (2) LOCATIONS; REPLACEMENT OF 15 LINEAR FEET OF BUILDING CONNECTIONS AT ONE (1) LOCATION; INSTALLATION OF FOUR (4) PRECAST CONCRETE SEWER MANHOLES; 924 LINEAR FEET OF ROOT TREATMENT; 4,944 LINEAR FEET OF CURED-IN-PLACE PIPE; GROUTING 101 SERVICE CONNECTIONS IN CURED-IN-PLACE PIPE; CUTTING OF SIX (6) PROTRUDING SERVICE CONNECTIONS; EXTERIOR GROUTING AND INTERIOR SEALING OF 253 VERTICAL FEET OF SEWER MANHOLES; GROUT AND PATCH ONE (1) SEWER MANHOLE; INSTALL SEVEN (7) MANHOLE INFLOW DISHES; REPLACEMENT OF ONE (1) MANHOLE FRAME AND COVER; 1,000 LINEAR FEET OF CLEANING AND INSPECTION OF SEWERS; 4,944 LINEAR FEET OF POST-CONSTRUCTION FLOW ISOLATION; AND OTHER RELATED TASKS IN THE TOWN OF ARLINGTON, MASSACHUSETTS.
- THE SCOPE OF WORK FOR ALTERNATE BID NO. 2 INCLUDES APPROXIMATELY: 1,075 LINEAR FEET OF 18-INCH CURED-IN-PLACE PIPE; GROUTING TWO (2) SERVICE CONNECTIONS IN CURED-IN-PLACE PIPE; INSPECTING, TESTING, AND SEALING OF SIX (6) SERVICE CONNECTIONS; EXTERIOR GROUTING AND INTERIOR SEALING OF 24 VERTICAL FEET OF SEWER MANHOLES; RAISING ONE (1) MANHOLE FRAME AND COVER TO GRADE; 1,330 LINEAR FEET OF POST-CONSTRUCTION FLOW ISOLATION; AND OTHER RELATED TASKS IN THE TOWN OF ARLINGTON, MASSACHUSETTS.
- THE SCOPE OF WORK FOR ALTERNATE BID NO. 3 INCLUDES APPROXIMATELY: 262 LINEAR FEET OF ROOT TREATMENT; 1,341 LINEAR FEET OF CURED-IN-PLACE PIPE; GROUTING 29 SERVICE CONNECTIONS IN CURED-IN-PLACE PIPE; 262 LINEAR FEET OF STRUCTURAL CURED-IN-PLACE PIPE; GROUTING SEVEN (7) SERVICE CONNECTIONS IN STRUCTURAL CURED-IN-PLACE PIPE; EXTERIOR GROUTING AND INTERIOR SEALING OF 77 VERTICAL FEET OF SEWER MANHOLES; GROUT AND PATCH THREE (3) SEWER MANHOLES; RAISING THREE (3) MANHOLE FRAMES AND COVERS TO GRADE; 1,603 LINEAR FEET OF POST-CONSTRUCTION FLOW ISOLATION; AND OTHER RELATED TASKS IN THE TOWN OF ARLINGTON, MASSACHUSETTS.
- THE SCOPE OF WORK FOR ALTERNATE BID NO. 4 INCLUDES APPROXIMATELY: 803 LINEAR FEET OF ROOT TREATMENT; 900 LINEAR FEET OF CURED-IN-PLACE PIPE; GROUTING 13 SERVICE CONNECTIONS IN CURED-IN-PLACE PIPE; CUTTING OF ONE (1) PROTRUDING SERVICE CONNECTIONS; EXTERIOR GROUTING AND INTERIOR SEALING OF 35 VERTICAL FEET OF SEWER MANHOLES; BUILDING BENCHES AND INVERTS IN THREE (3) SEWER MANHOLES; 900 LINEAR FEET OF POST-CONSTRUCTION FLOW ISOLATION; AND OTHER RELATED TASKS IN THE TOWN OF ARLINGTON, MASSACHUSETTS.
- WORK HOURS OF 9:00 A.M. TO 3:00 P.M. MAY BE REQUIRED ON MYSTIC STREET, GRAY STREET, SPRING STREET, NORTH UNION STREET, HIGHLAND AVENUE, SUMMER STREET, AND MILL STREET.

## ABBREVIATIONS, LEGENDS, AND NOTES

TOWN OF ARLINGTON, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS  
PHASE #10 SANITARY SEWER REHABILITATIONS

THE "S" AT THE END OF MANHOLE NUMBERS SHOWN IN THE PLAN VIEW INDICATES SEWER AND THE "D" INDICATES DRAIN. THE DESIGNATION HAS NOT BEEN INCLUDED IN THE WORK TABLES FOR CLARITY.

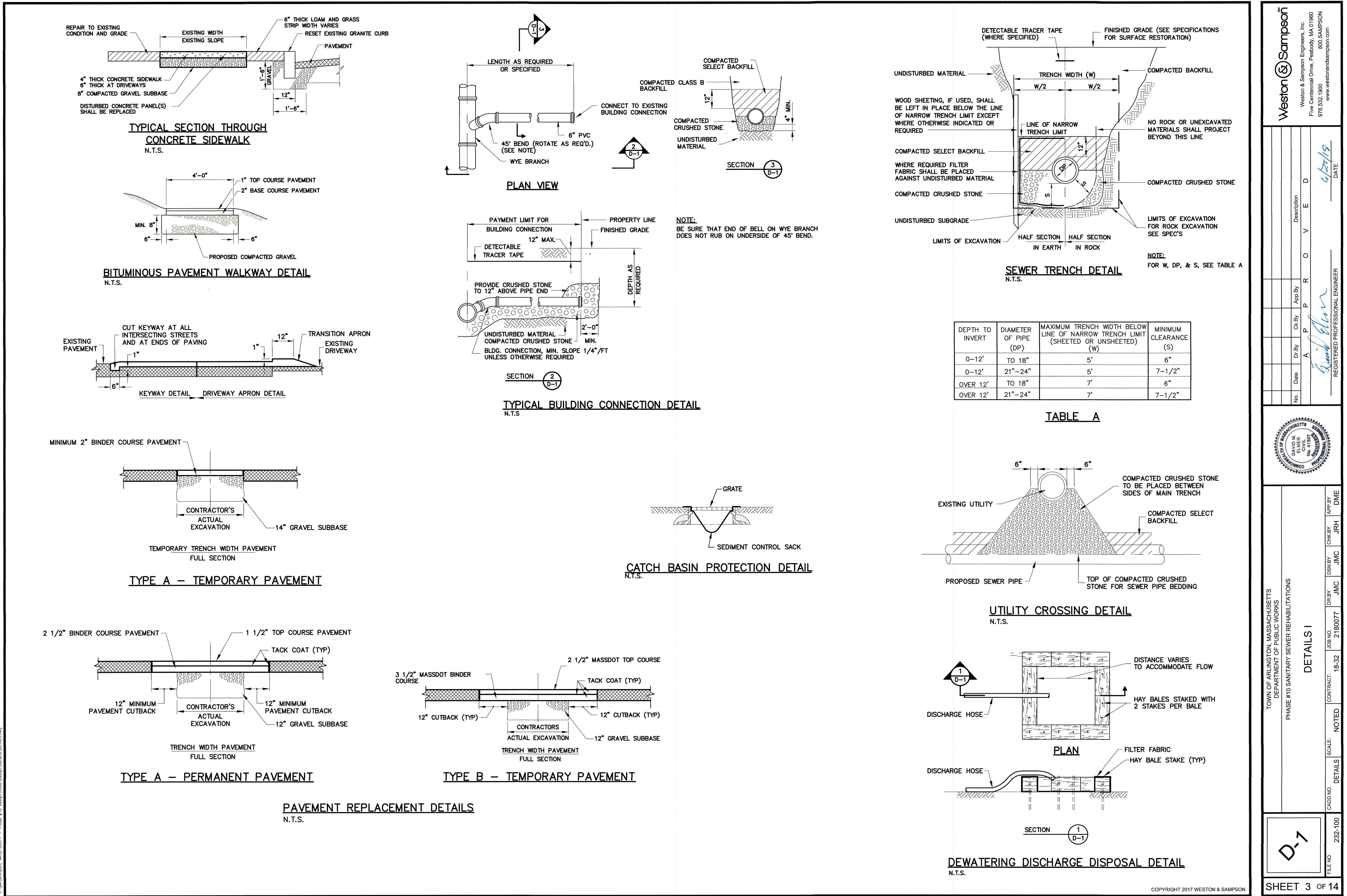
Weston & Sampson<sup>sm</sup>  
Weston & Sampson, Inc.  
Five Centennial Drive, Peabody, MA 01960  
978-532-1900  
www.westonsampson.com

G-7

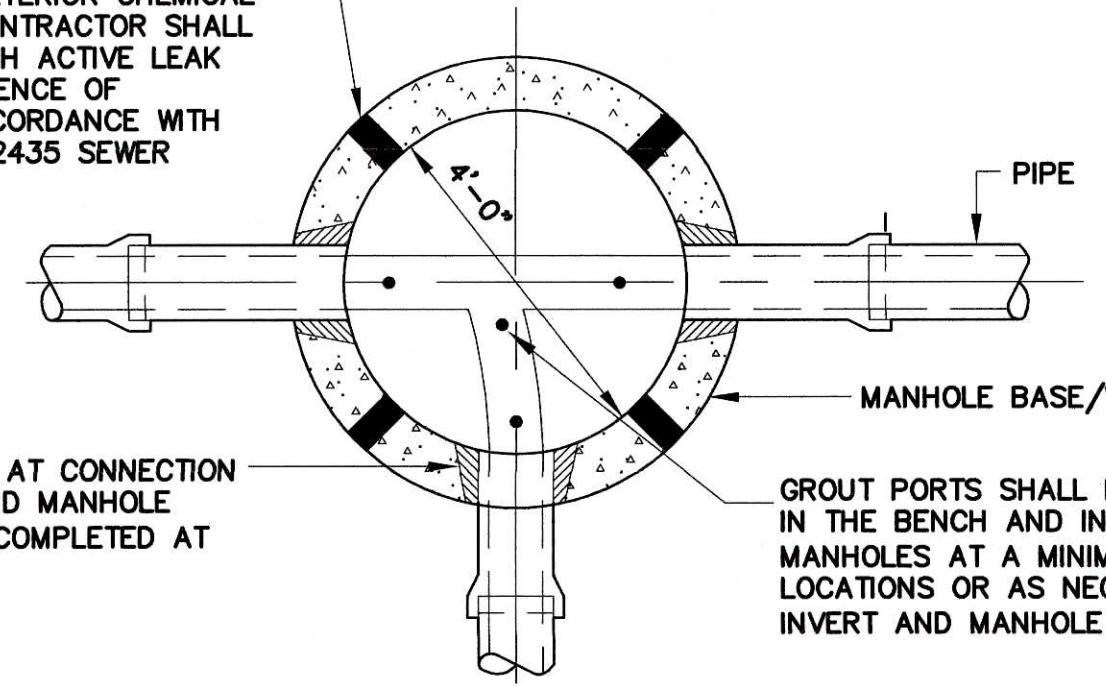
FILE NO. 232-101

COPYRIGHT 2017 WESTON & SAMPSON

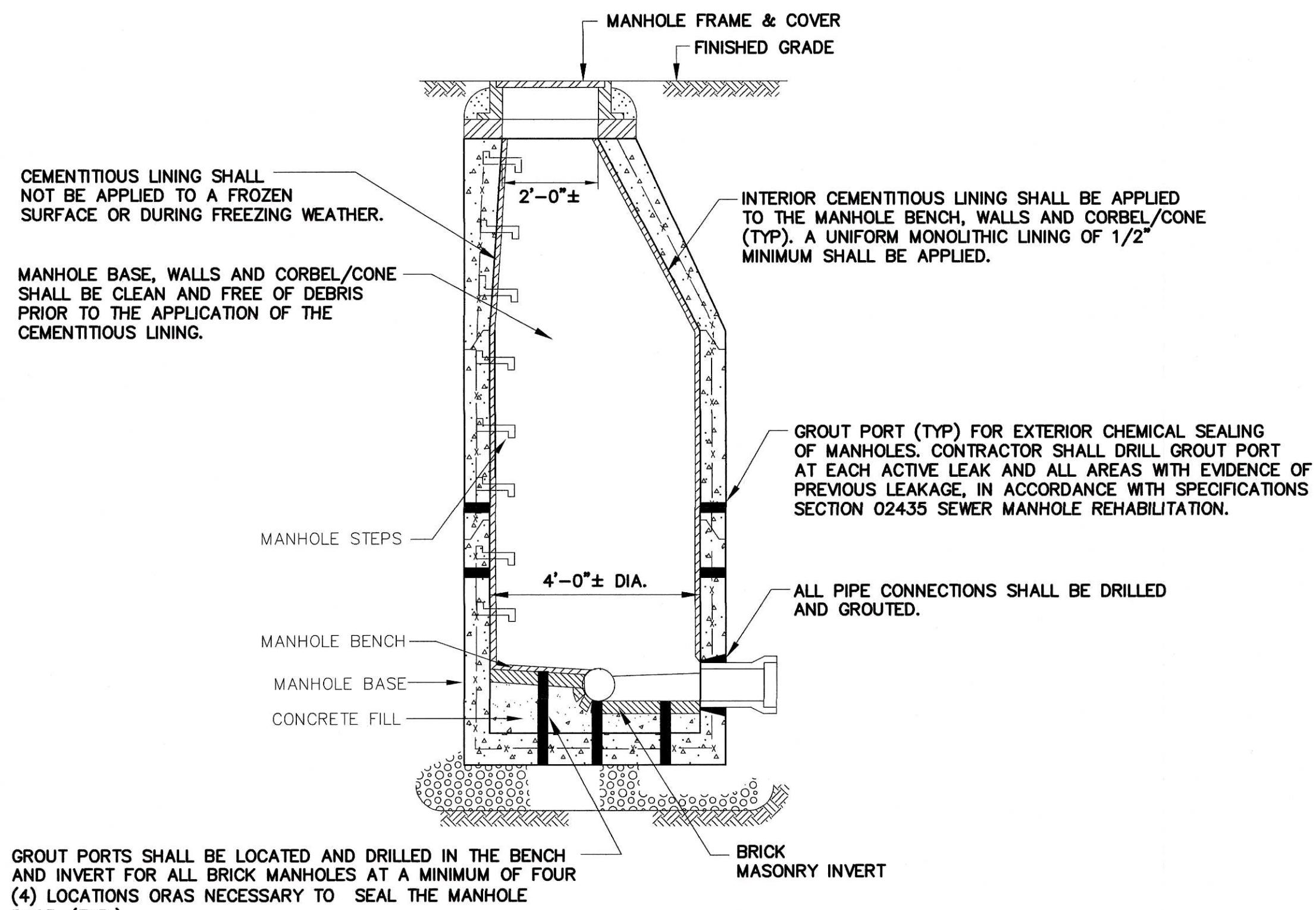
SHEET 2 OF 14



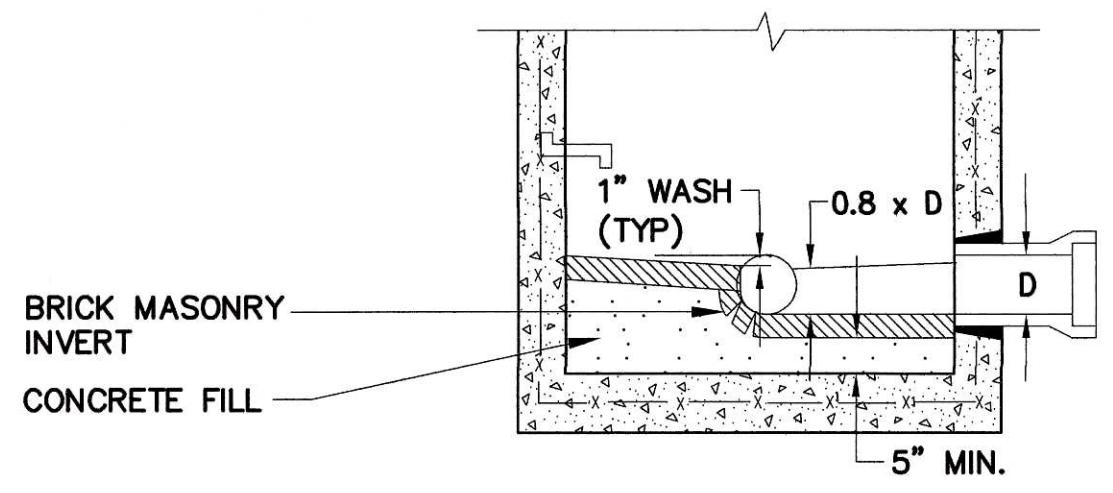
GROUT PORT (TYP) FOR EXTERIOR CHEMICAL SEALING OF MANHOLES. CONTRACTOR SHALL DRILL GROUT PORT AT EACH ACTIVE LEAK AND ALL AREAS WITH EVIDENCE OF PREVIOUS LEAKAGE, IN ACCORDANCE WITH SPECIFICATIONS SECTION 02435 SEWER MANHOLE REHABILITATION.



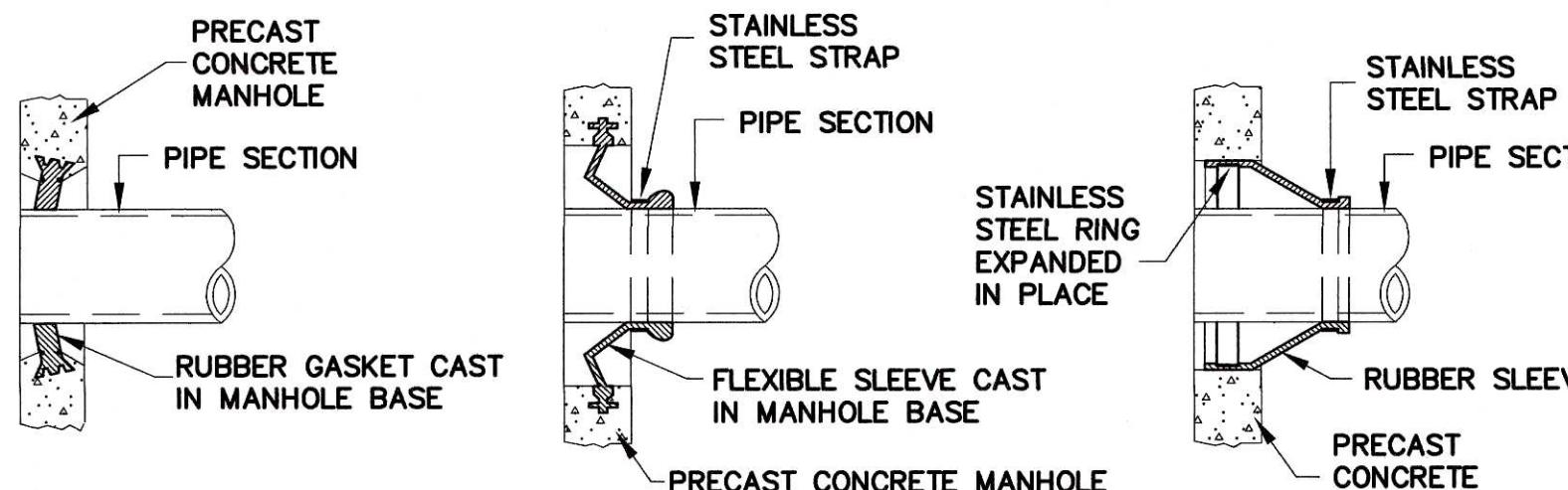
**4'-0" DIA. MANHOLE SEALING PLAN**  
N.T.S.



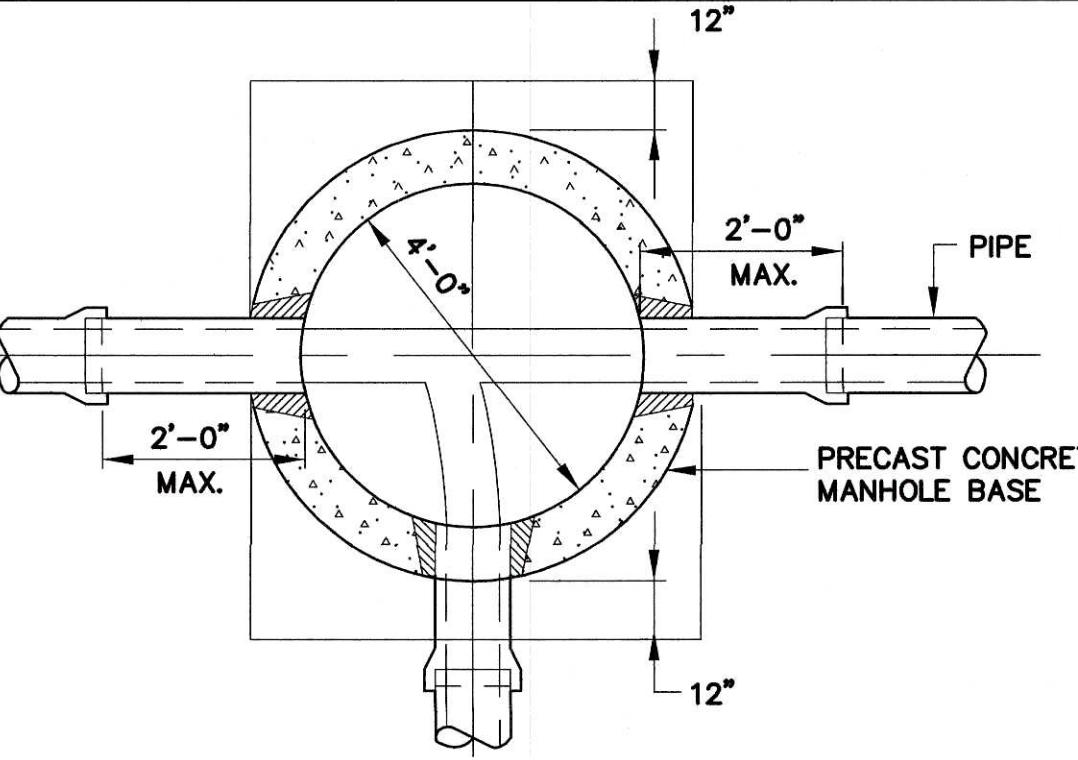
**4'-0"± DIA. MANHOLE CEMENTITIOUS LINING DETAIL**  
N.T.S.



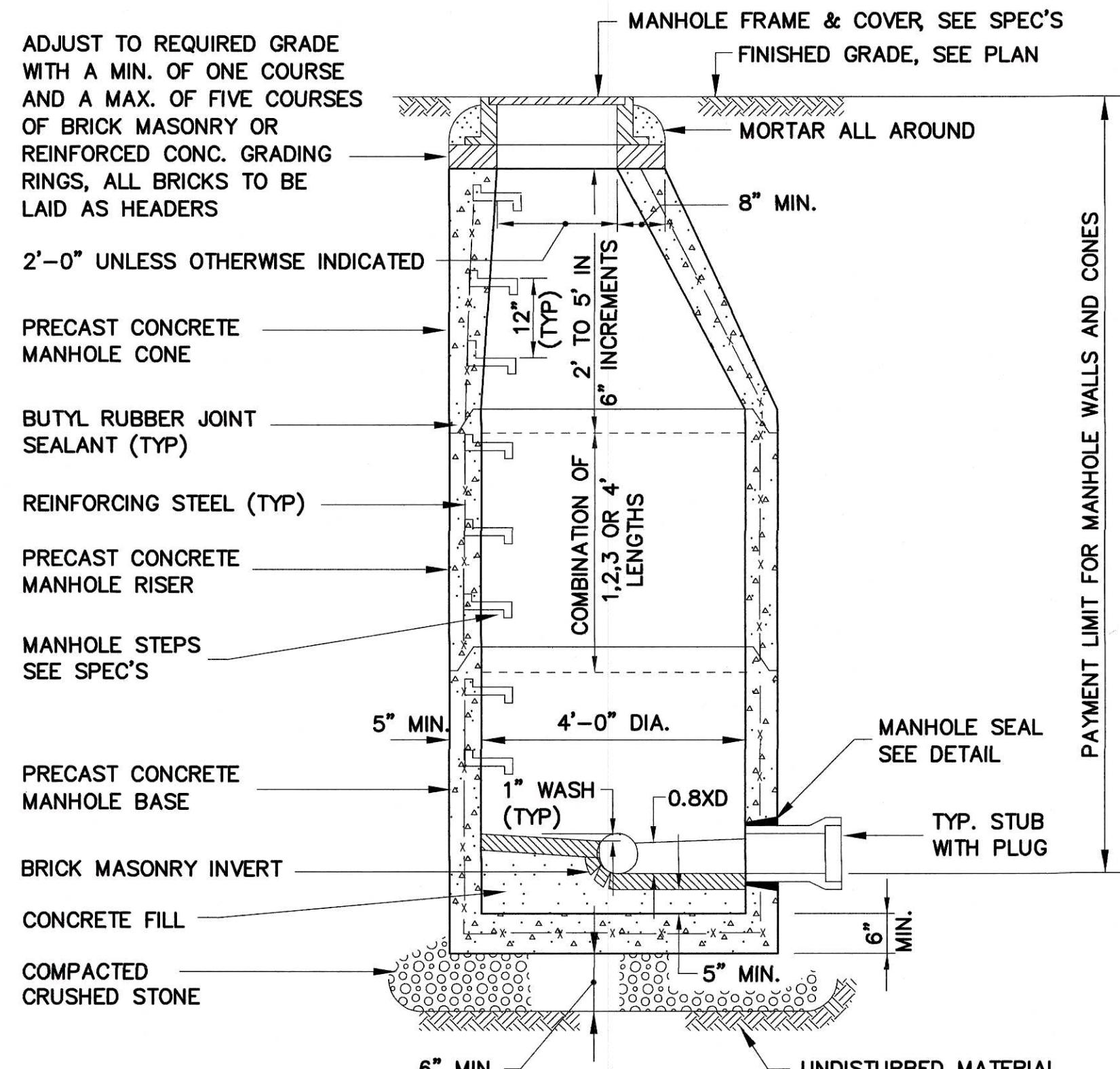
**BUILD MANHOLE BENCH AND INVERT DETAIL**  
N.T.S.



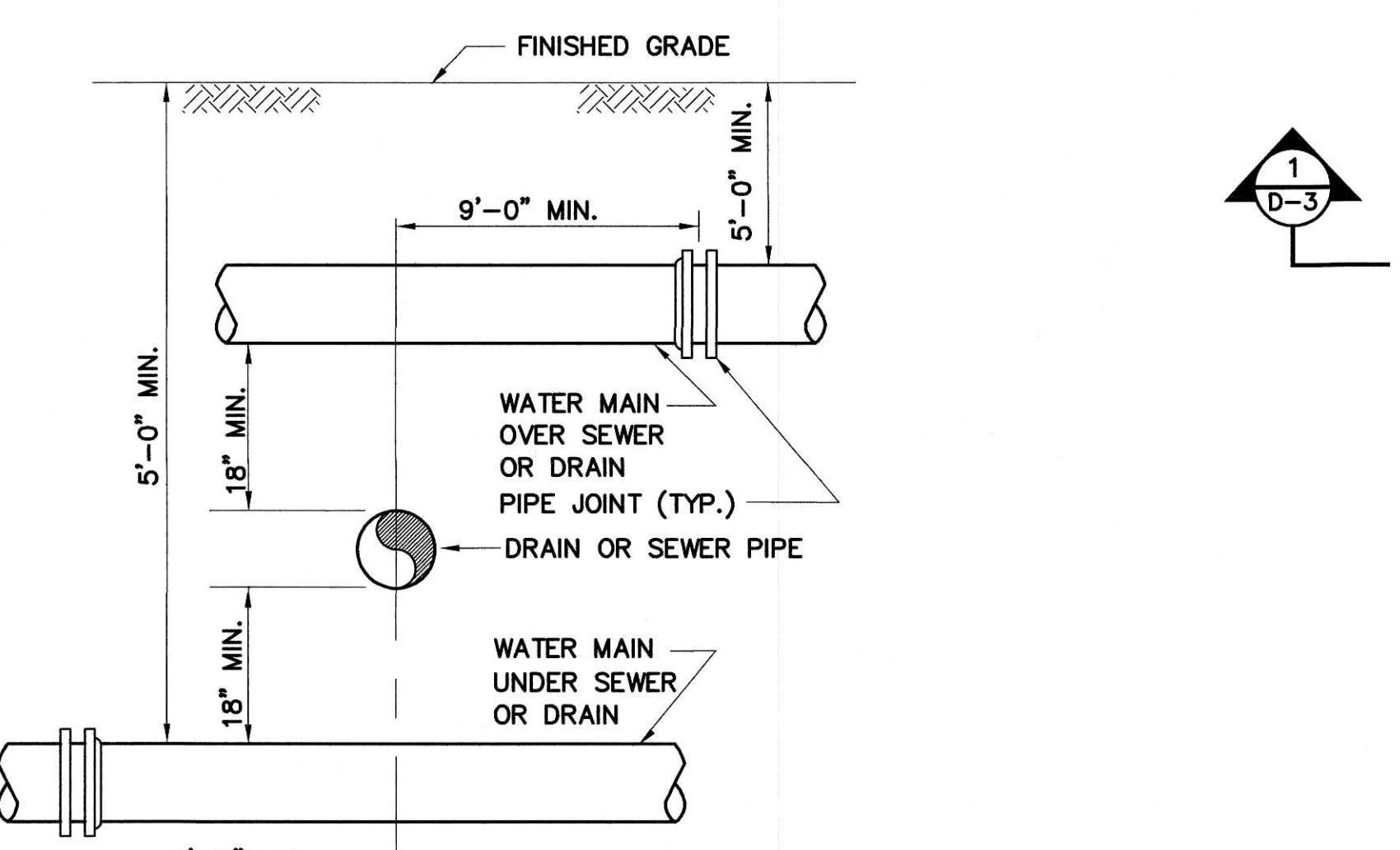
**MANHOLE SEAL DETAILS**  
N.T.S.



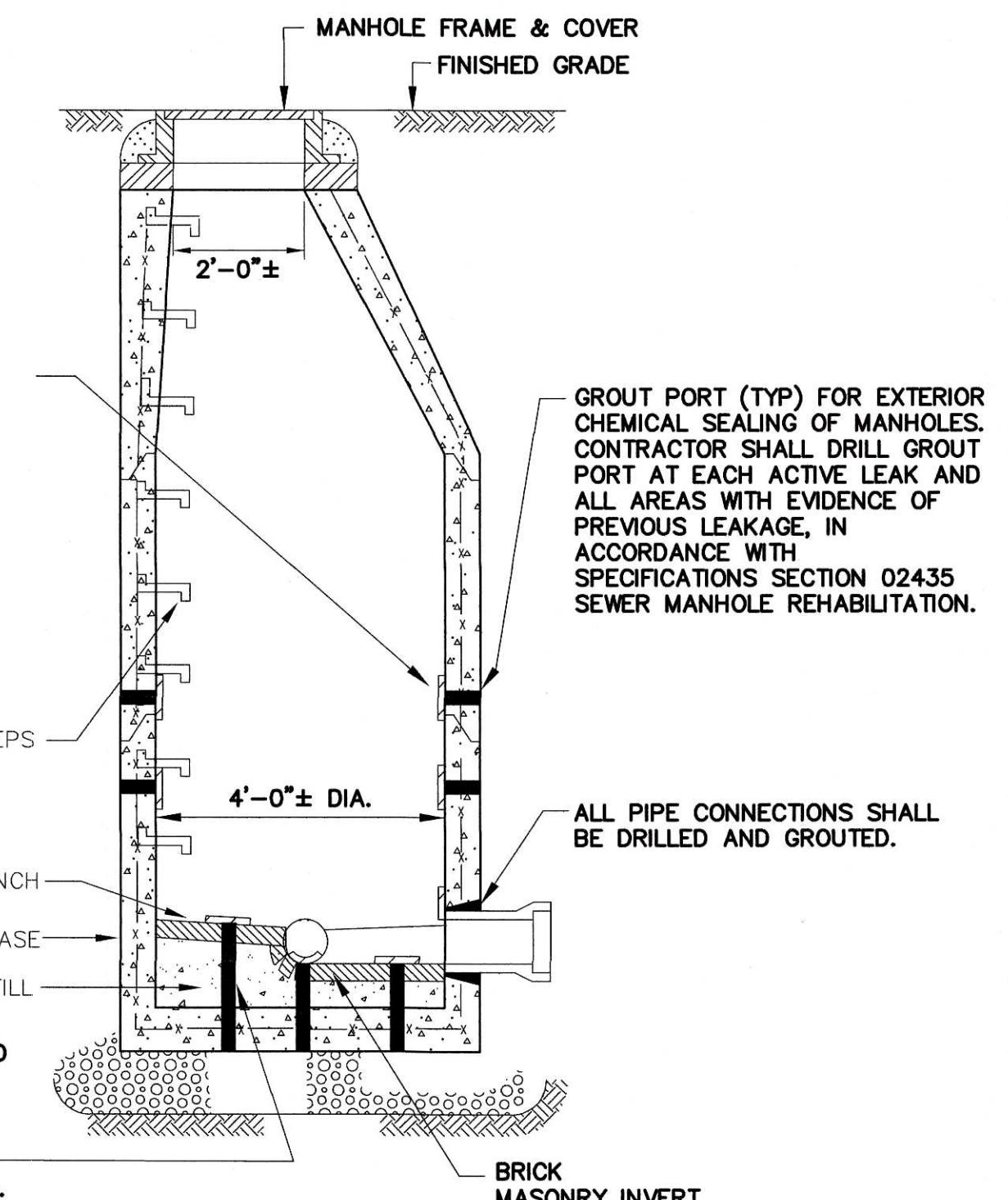
**4'-0" DIA. MANHOLE PLAN**  
N.T.S.



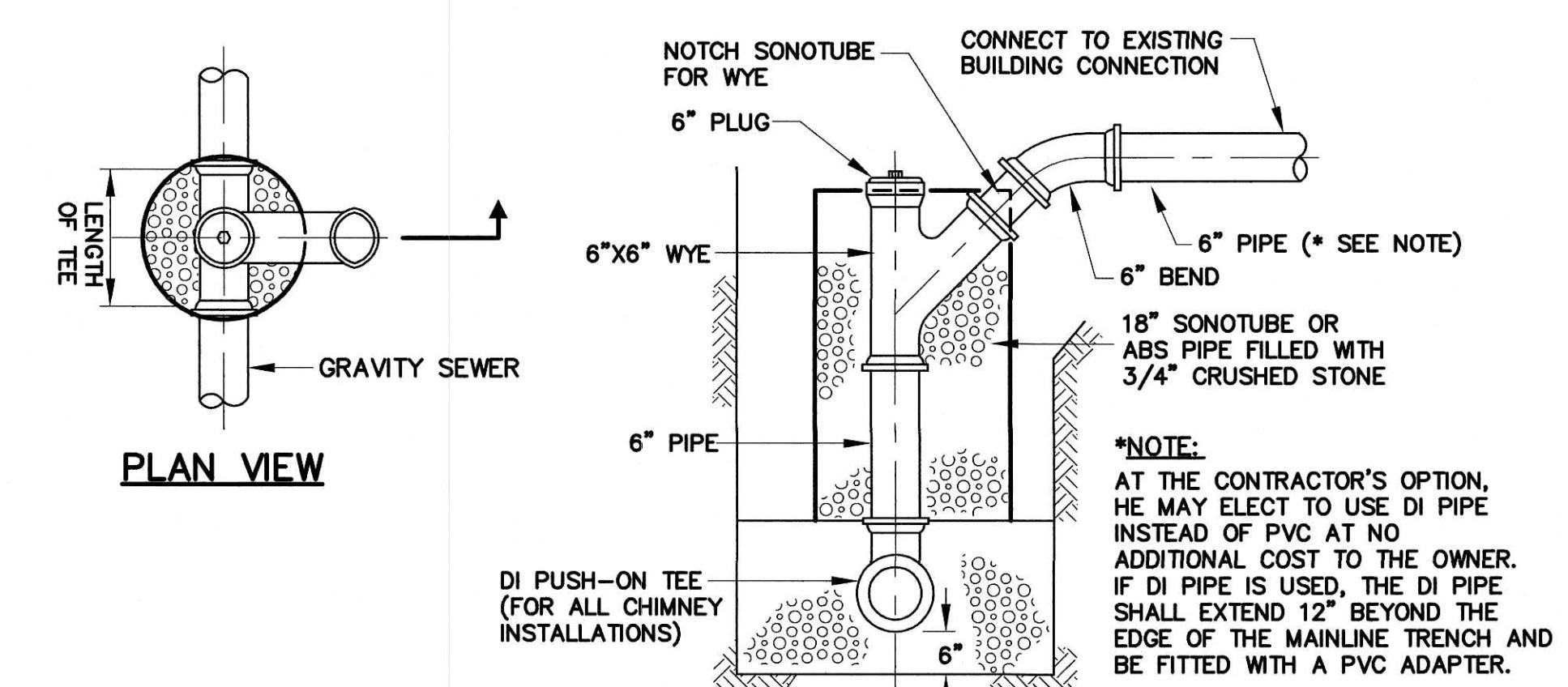
**4'-0" DIA. PRECAST CONCRETE MANHOLE DETAIL**  
N.T.S.



**SEWER OR DRAIN CROSSING DETAIL**  
N.T.S.



**4'-0"± DIA. MANHOLE GROUT AND PATCH DETAIL**  
N.T.S.



**SECTION 1 CHIMNEY DETAIL FOR SEWER**  
N.T.S.

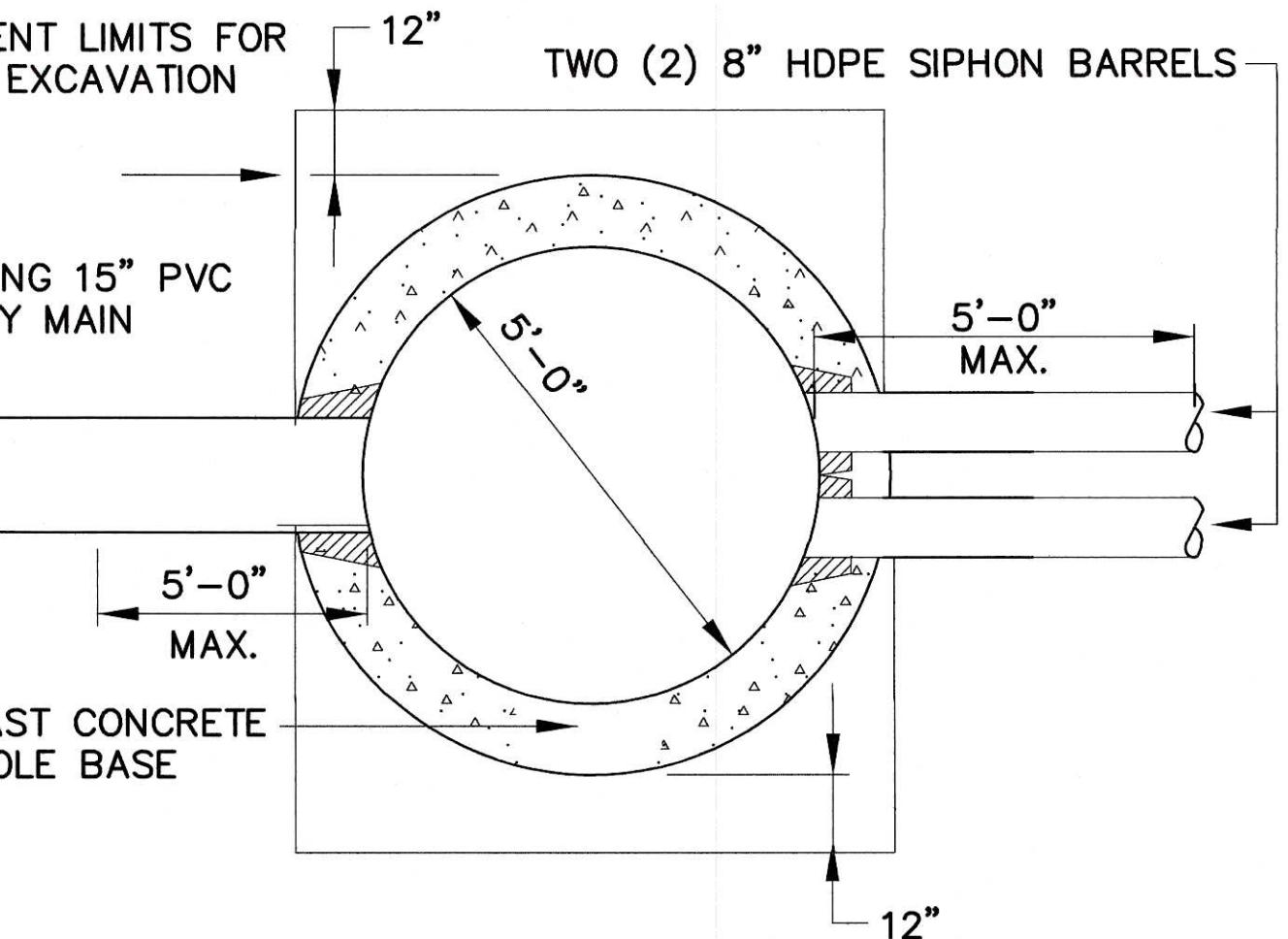
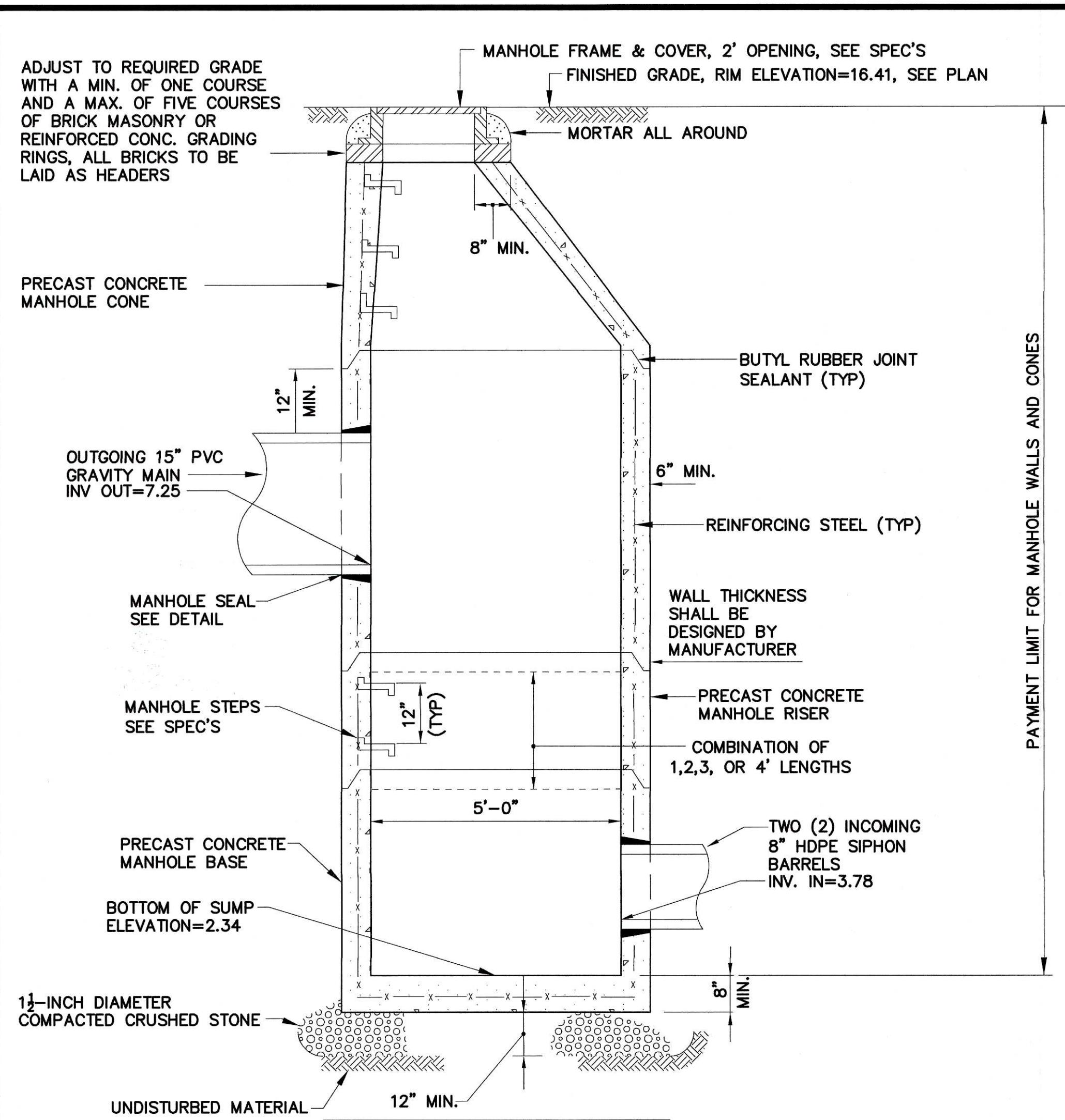
WESTON & SAMPSON, INC.  
Five Centennial Drive, Peabody, MA 01960  
978.532.9000  
www.westonsandsampson.com

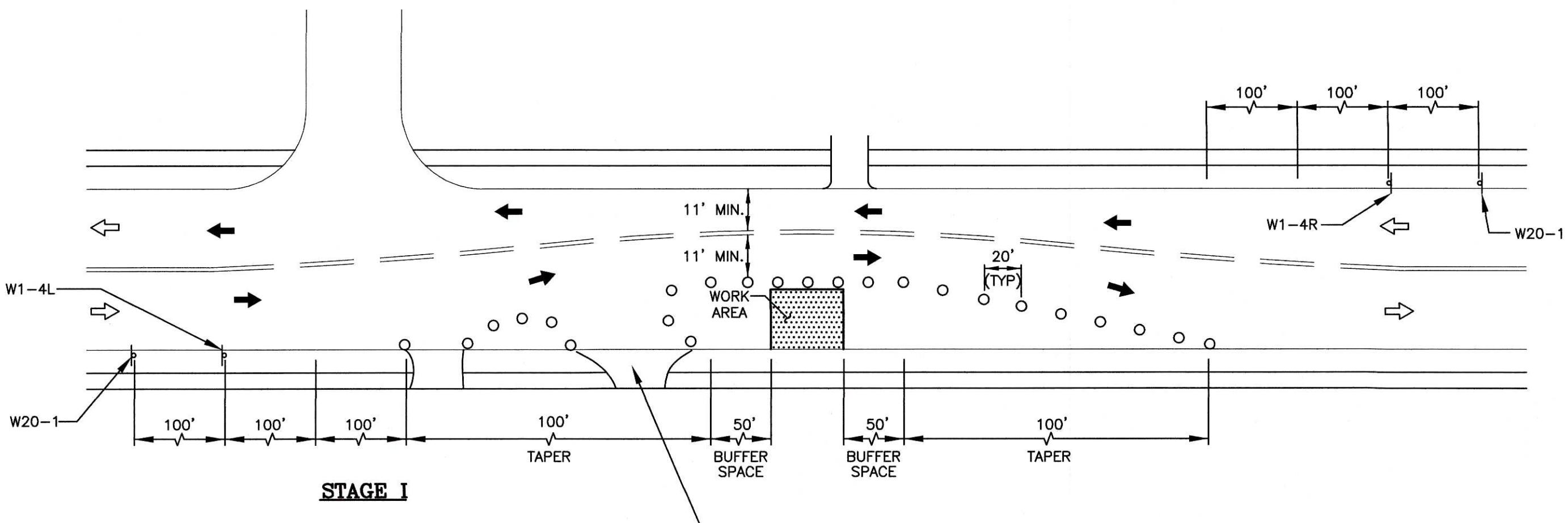
TOWN OF ARLINGTON, MASSACHUSETTS  
PHASE #10 SANITARY SEWER REHABILITATIONS

DETAILS II

SHEET 4 OF 14

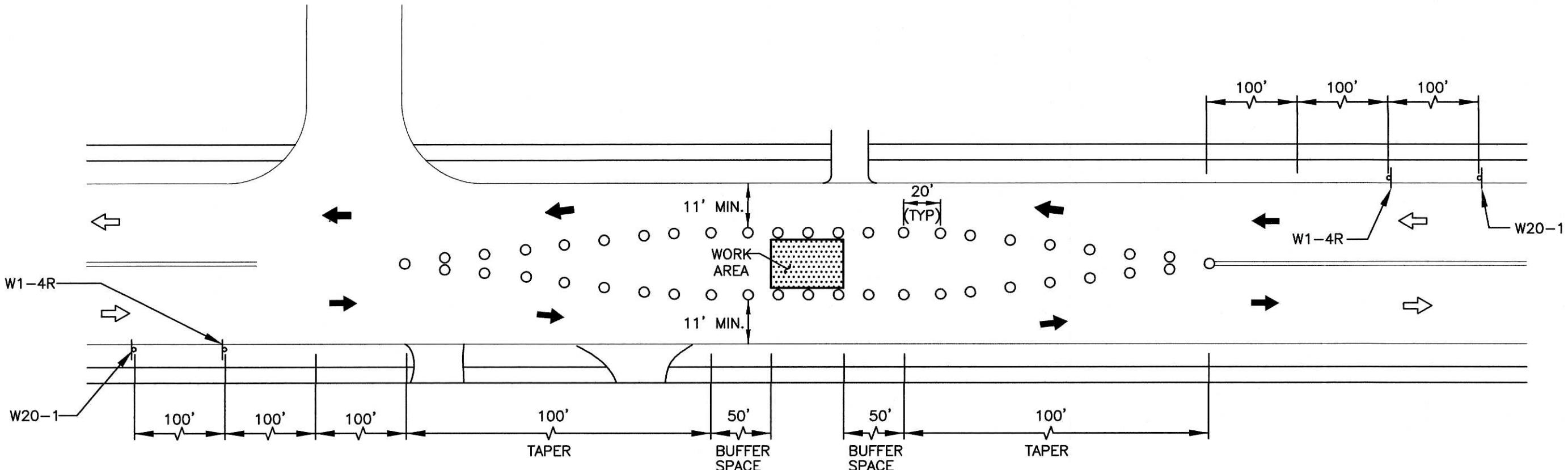
D-2





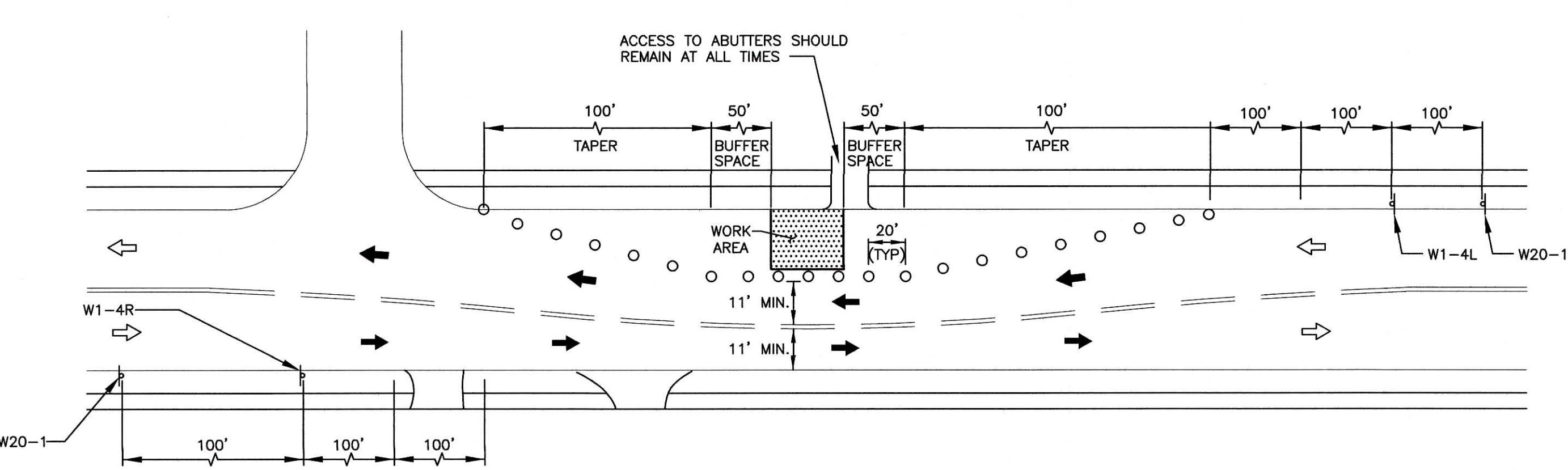
## STAGE

— ACCESS TO ABUTTERS SHOULD  
REMAIN AT ALL TIMES



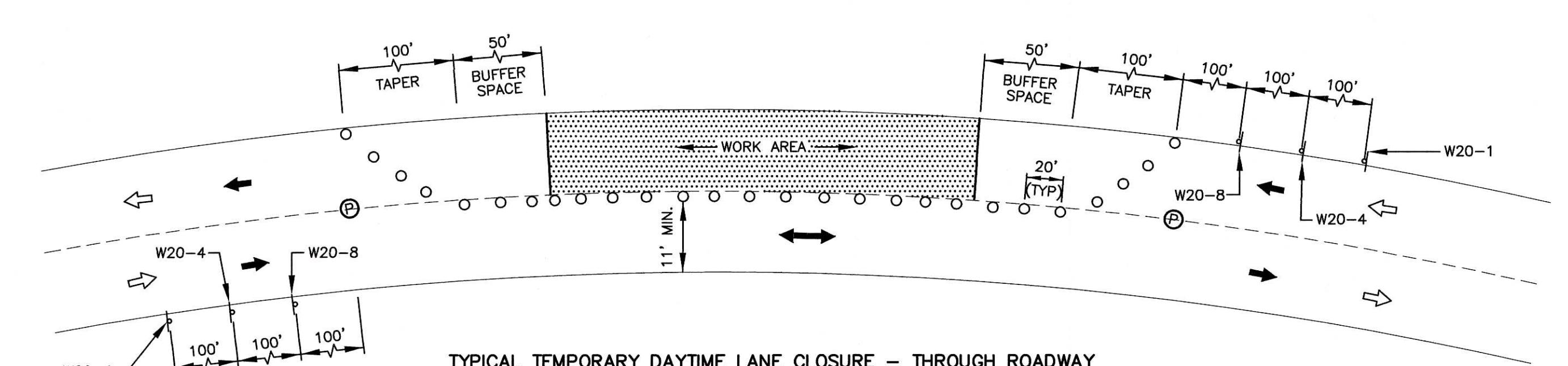
## STAGE I

SS TO ABUTTERS SHOULD  
WITNESSED.

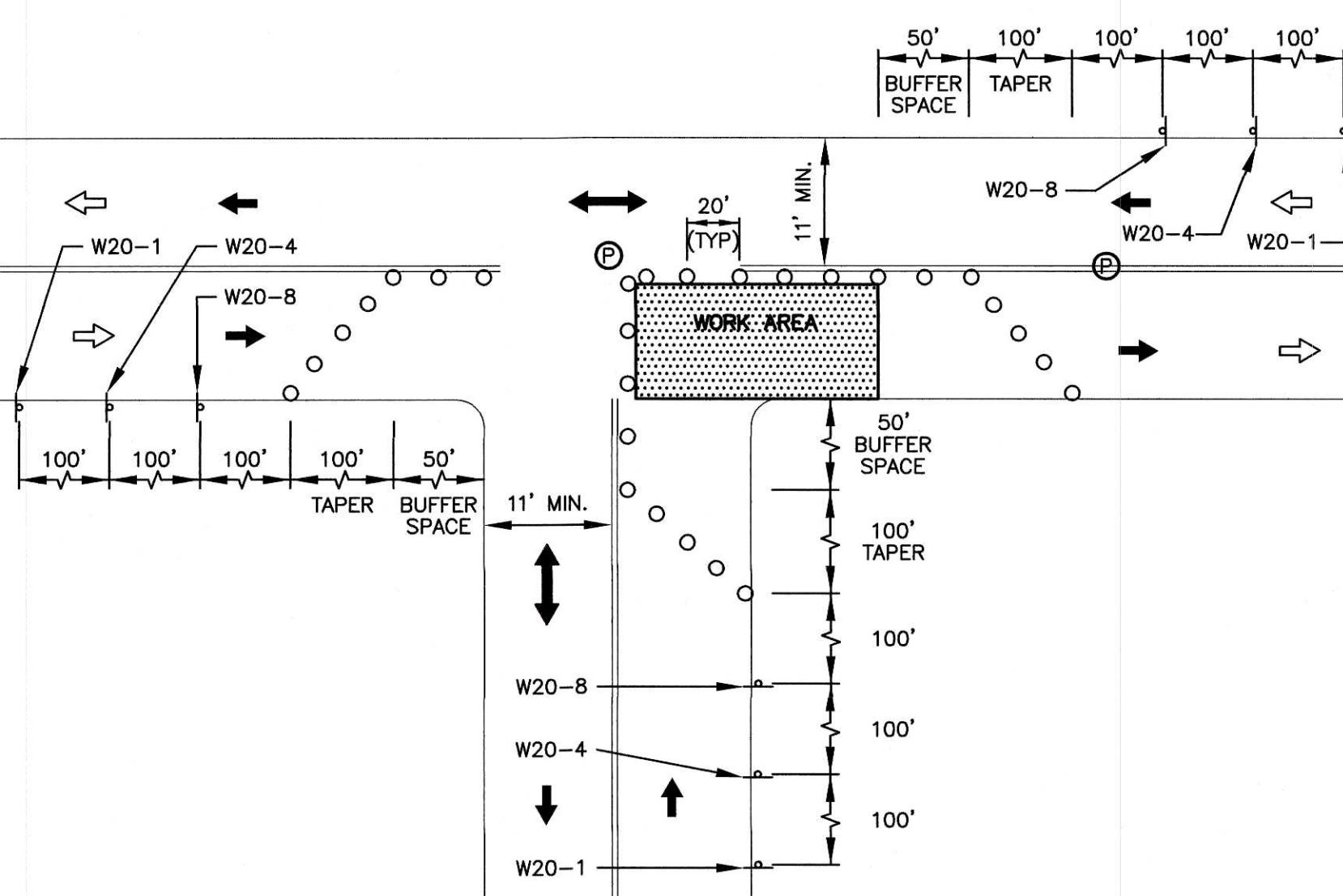


## **STAGE II**

TRAFFIC OPERATION STAGE  
N.T.S.



**TYPICAL TEMPORARY DAYTIME LANE CLOSURE – THROUGH ROADWAY**  
**(ONE LANE- BI-DIRECTIONAL)**  
**N.T.S.**



**"T" INTERSECTION LANE CLOSURE**  
**N.T.S.**

MUTCD CODE	SIZE OF SIGN		SIGN
	WIDTH	HEIGHT	
W1-4L	30"	30"	
W1-4R	30"	30"	
W20-1	36"	36"	
W20-4	36"	36"	
W20-8	36"	36"	

**NOTE:**

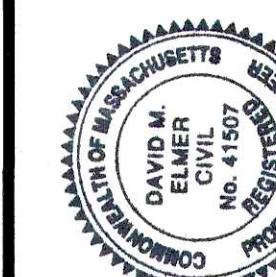
- I. FOR THE LATEST SPECIFICATION ON TEXT DIMENSIONS AND COLOR, CONTRACTOR SHALL REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION).

**LEGEND:**

- REFLECTORIZED DRUM
- ◀ TRAFFIC FLOW DURING CONSTRUCTION
- ◀ NORMAL TRAFFIC FLOW
- Ⓟ POLICE DETAIL OFFICER
- ▷ CONSTRUCTION SIGN
-  WORK AREA

**GENERAL NOTES:**

1. PLACEMENT OF ALL CONSTRUCTION SIGNS, DRUMS, BARRICADES, TRAFFIC DEVICES AND THE SHAPE, SIZE & COLOR OF ALL TEMPORARY TRAFFIC SIGNS SHALL CONFORM WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. ADVANCE WARNING SIGN PLACEMENT AND TAPER LENGTH TO BE ADJUSTED ACCORDING TO STREET CONDITIONS AND DRIVEWAY OPENINGS.
3. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES.
4. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
5. NONESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
6. PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
7. W20-8 SHALL BE TAKEN DOWN OR COVERED AFTER EACH WORKING DAY OR WHEN OTHERWISE NOT APPLICABLE, OR WHEN POLICE OFFICERS ARE NOT PRESENT TO DIRECT TRAFFIC.
8. ADVISORY SPEED PLATES (W13-1 - SEE CURRENT EDITION OF MUTCD) SHALL BE USED IF APPLICABLE AND AS REQUIRED BY THE ENGINEER.
9. NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE WORK DAY.
10. SAMPLE TRAFFIC PLANS INCLUDED ON THIS PLAN SHEET ARE BASED ON AN URBAN (LOW SPEED) ROAD TYPE FROM THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
11. DASHED LINES SHOW LANE DESIGNATIONS TO BE USED DURING CONSTRUCTION.
12. THE CONTRACTOR SHALL SUBMIT ANY REVISIONS TO THE CONSTRUCTION ZONE SAFETY PLAN TO THE ENGINEER FOR APPROVAL.
13. THIS CONSTRUCTION ZONE SAFETY PLAN SHALL NOT RELIEVE THE CONTRACTOR OF HIS SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.

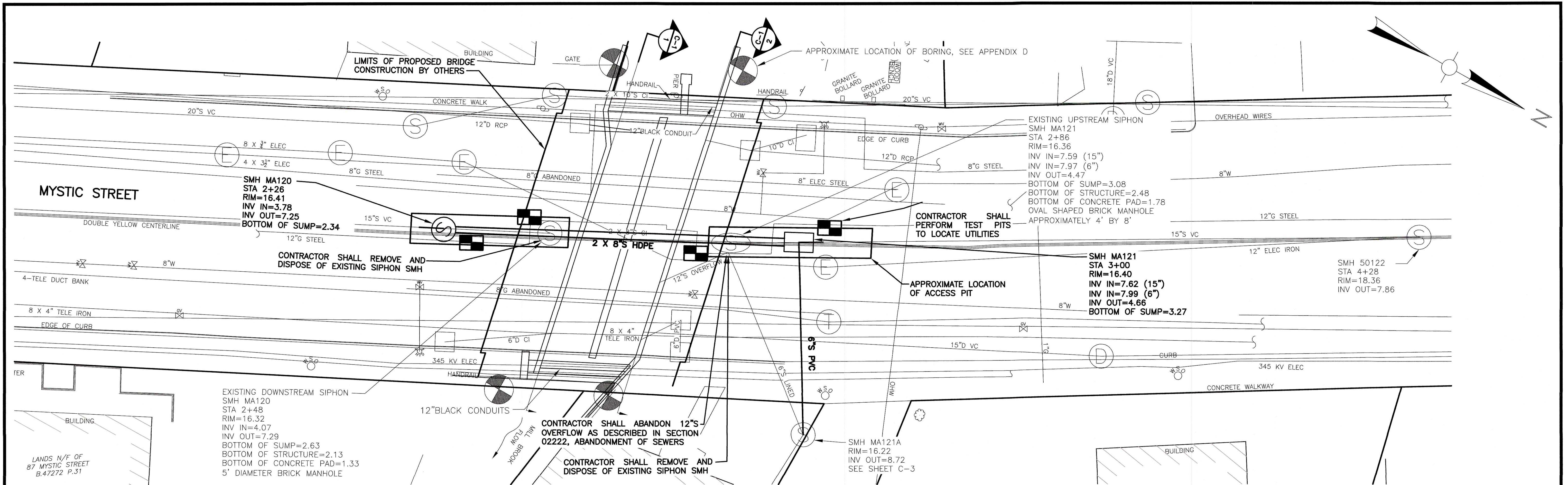


**TOWN OF ARLINGTON, MASSACHUSETTS**  
**DEPARTMENT OF PUBLIC WORKS**

**PHASE #10 SANITARY SEWER REHABILITATIONS**

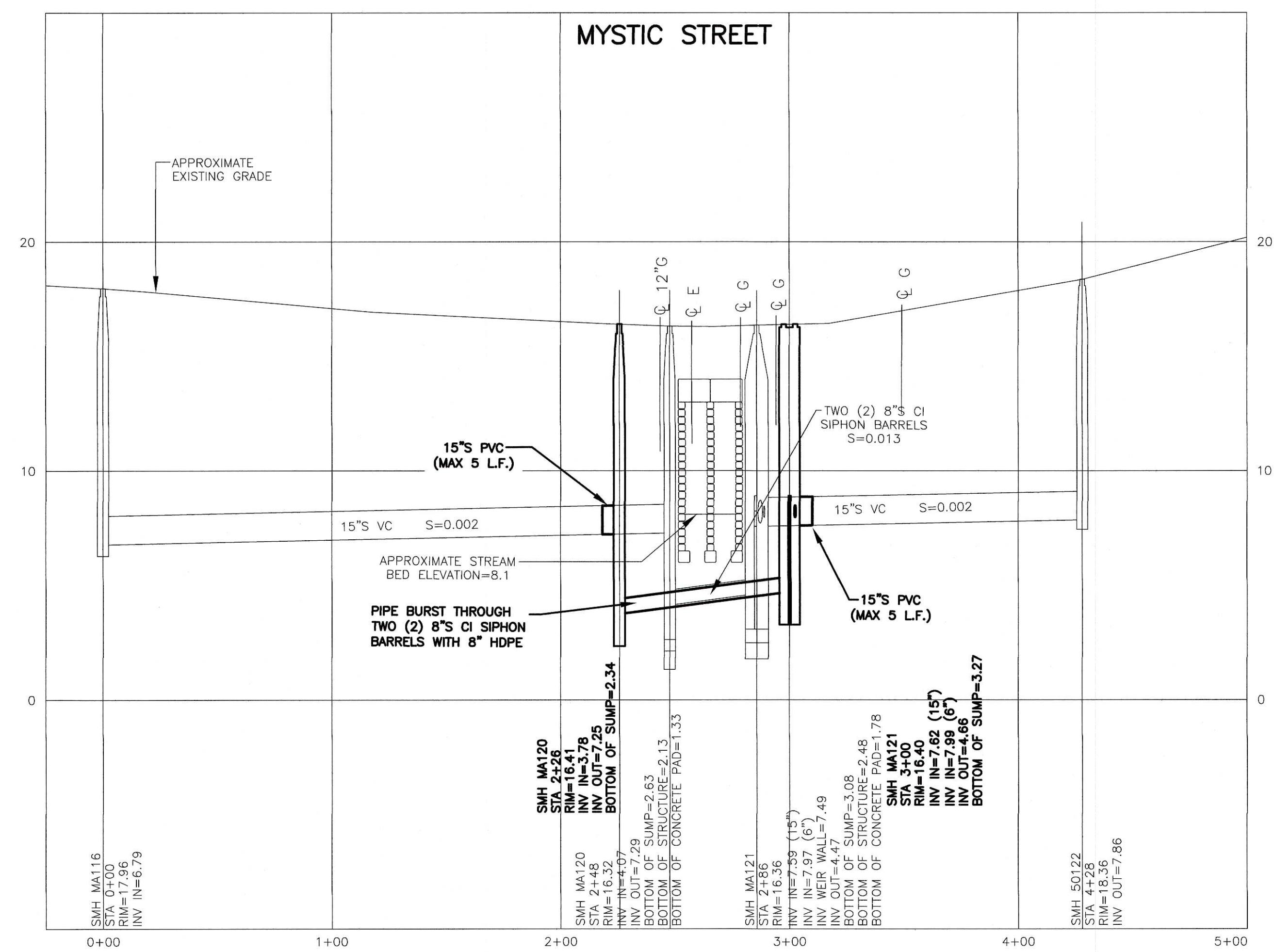
**CONSTRUCTION ZONE SAFETY PLAN**

-4



PROPOSED PLAN

SCALE: 1" = 10'



PROPOSED PROFILE

SCALE: 1"=40' HORIZ  
1"=4' VERT

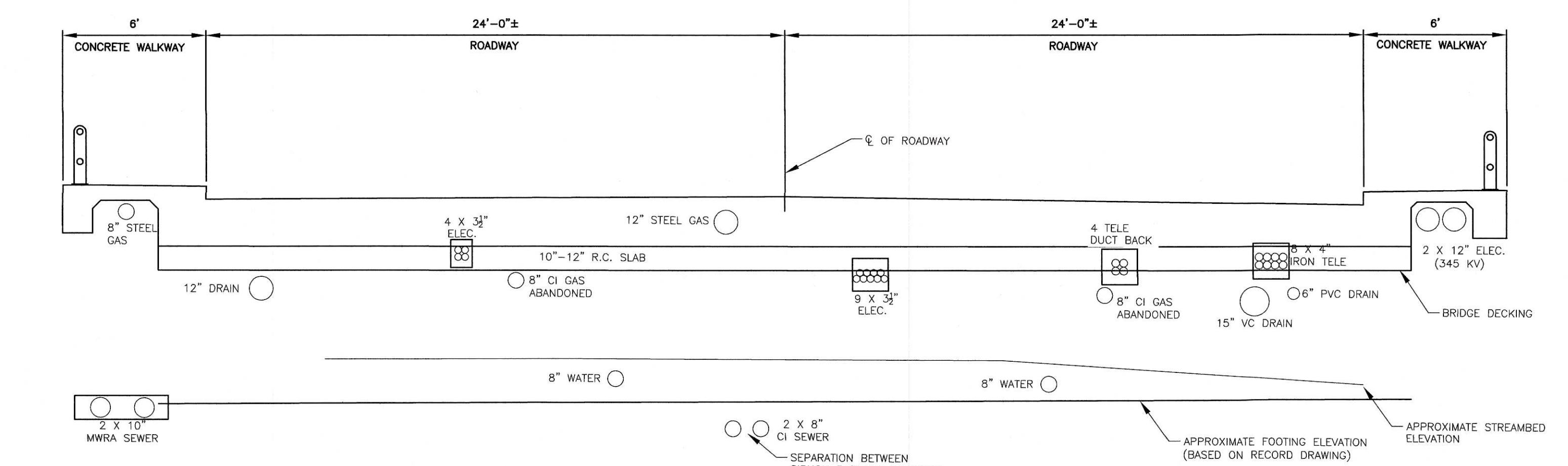
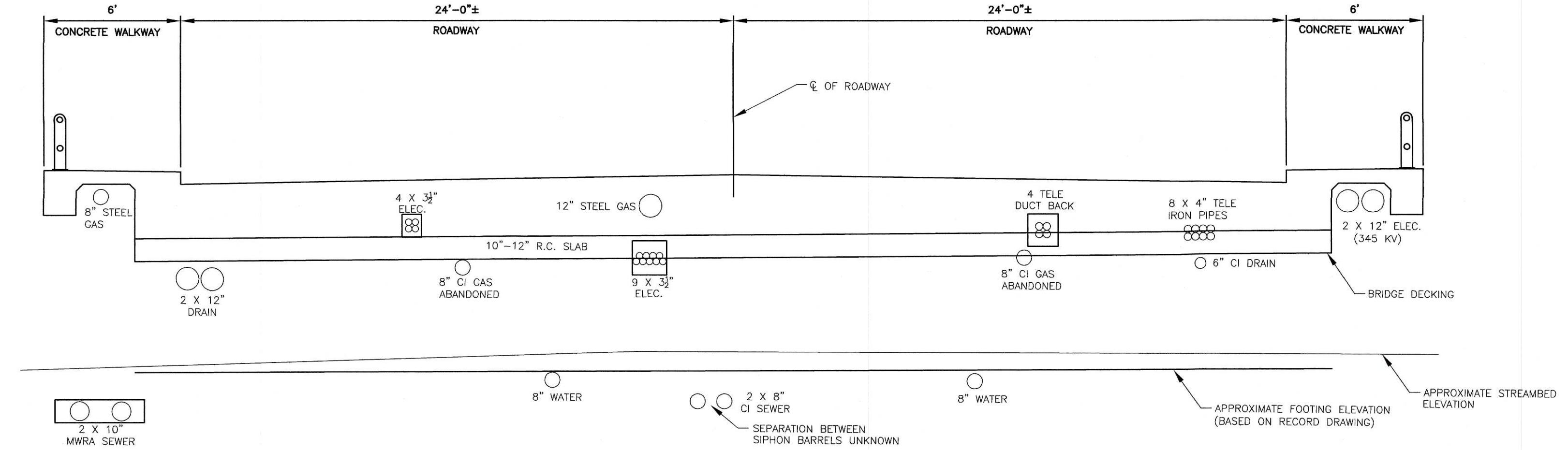
NOTE:

1. TEMPORARY BYPASS PUMPING SYSTEM SHALL NOT INTERFERE WITH ACCESS ROADS, WALKING PATHS, OR SIDEWALKS.
2. TEMPORARY BYPASS PUMPING SYSTEM SHALL HAVE ONE STAND BY PUMP FOR EACH PUMP UTILIZED, READY TO USE IN THE EVENT OF A PRIMARY PUMP FAILURE. CONTRACTOR SHALL BYPASS FLOW FROM THE 15-INCH GRAVITY MAINLINE AND 6-INCH GRAVITY SERVICE. SEE SPECIFICATION SECTION 01535, TEMPORARY BYPASS PUMPING SYSTEM FOR SEWER FLOW CHARACTERISTICS.
3. CONTRACTOR SHALL BURY TEMPORARY BYPASS PIPING AT ALL SIDEWALK, ROAD, WALKWAY, AND DRIVEWAY CROSSINGS.
4. THE OWNER HAS APPLIED FOR AN MWRA 8M PERMIT RELATED TO THE SEWER BYPASS WORK ON MYSTIC STREET.
5. TELEVISION INSPECTION SHALL BE PERFORMED IN "DRY PIPE" DURING TEMPORARY BYPASS OPERATION.
6. CONTRACTOR SHALL PROTECT ALL UTILITIES.
7. ACCESS PIT LOCATIONS IN PLAN ARE APPROXIMATE. CONTRACTOR MAY LOCATE ACCESS PITS AT THEIR DISCRETION FOR PIPE BURSTING OPERATIONS.
8. CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE OF TRAVEL IN EACH DIRECTION DURING CONSTRUCTION ACTIVITIES.
9. TEST PITS SHALL BE PERFORMED TO LOCATE EXISTING UTILITIES, AS APPROVED BY THE ENGINEER.
10. PHOTOS OF EXISTING SIPHON MANHOLES ARE INCLUDED IN APPENDIX C.
11. BORING INFORMATION IS INCLUDED IN APPENDIX D.

WESTON & SAMPSON <sup>SM</sup>		Weston & Sampson Engineers, Inc. Five Centennial Drive, Peabody, MA 01960 978.532.900 www.westonsampson.com							
		DATE	4/27/15	APPROVED	RECORDED	REGISTERED PROFESSIONAL ENGINEER			
No.	Date	Dr. By	Ck. By	P	R	O	V	E	D

TOWN OF ARLINGTON, MASSACHUSETTS PHASE #10 SANITARY SEWER REHABILITATIONS		MYSTIC STREET SIPHON PLAN AND PROFILE	
FILE NO.	ADD NO.	SCALE:	NOTED
232-96	-	1"=40' HORIZ 1"=4' VERT	
CONTRACT:	18-32	JOB NO.	2180077
DSB BY	JMC	CHK BY	JRH
APP BY	DME		

C-1



EXISTING CROSS SECTION VIEWS  
SCALE: 1/4" = 1'

6/27/15  
DATE

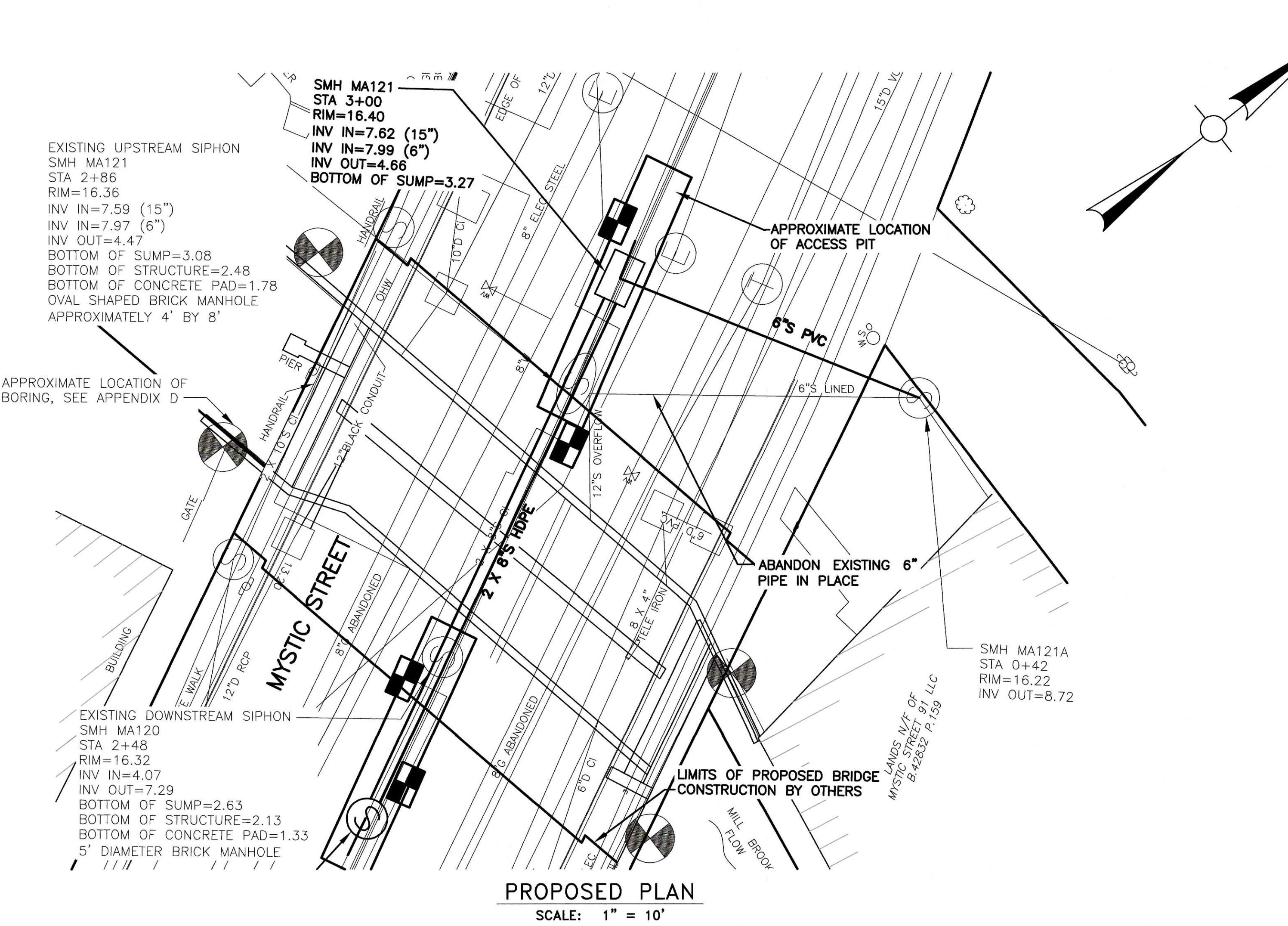
REGISTERED PROFESSIONAL ENGINEER  
G. J. [Signature]  
G. J. [Signature]



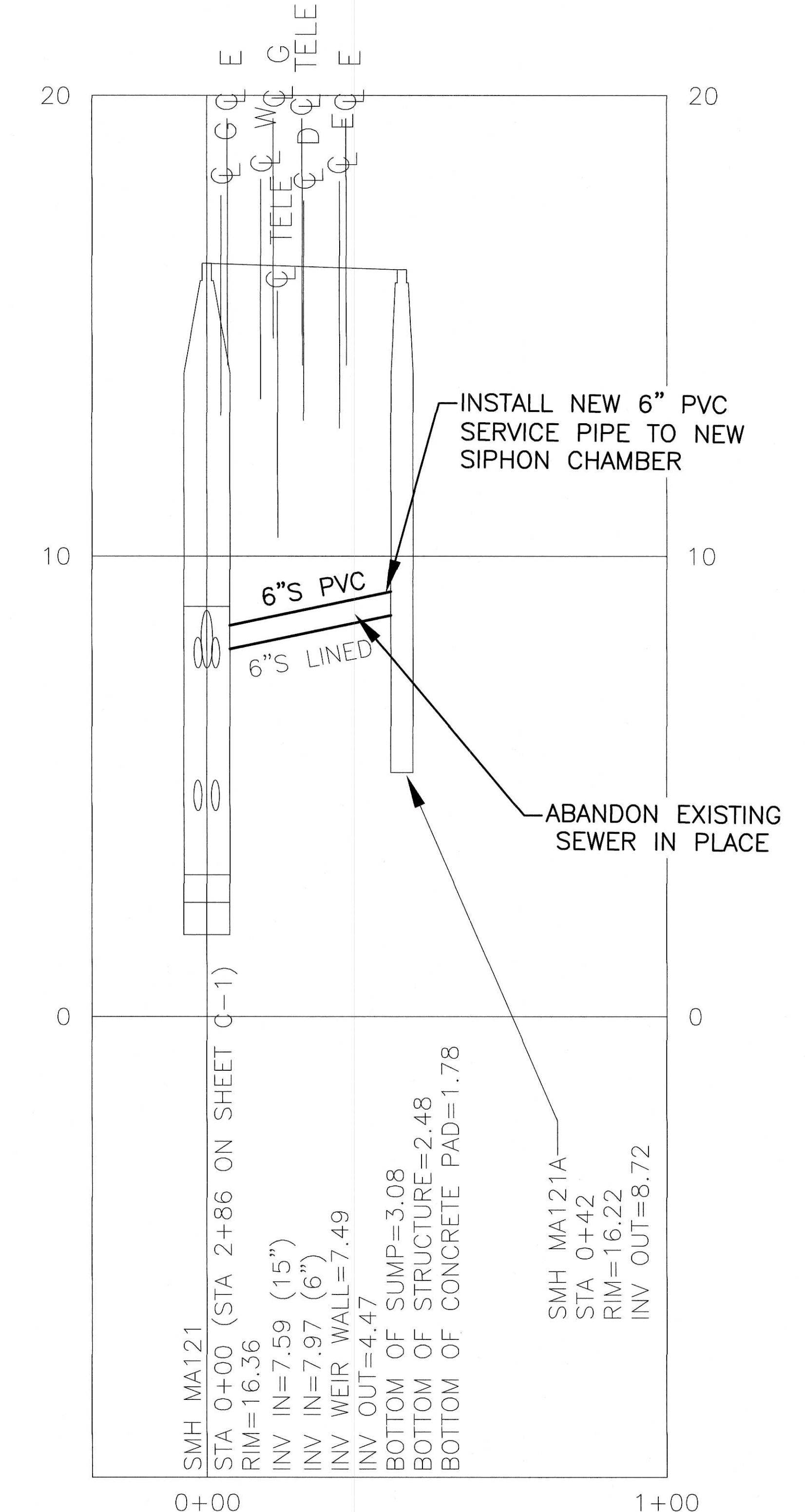
TOWN OF ARLINGTON, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS  
PHASE #10 SANITARY SEWER REHABILITATIONS  
MYSTIC STREET SIPHON SECTION VIEWS  
BASE BID

C-2  
FILE NO. 232-95

SHEET 8 OF 14



# MYSTIC STREET SERVICE CONNECTION



## PROPOSED PROFILE

NOTE:

1. TEMPORARY BYPASS PUMPING SYSTEM SHALL NOT INTERFERE WITH ACCESS ROADS, WALKING PATHS, OR SIDEWALKS.
2. TEMPORARY BYPASS PUMPING SYSTEM SHALL HAVE ONE STAND BY PUMP FOR EACH PUMP UTILIZED, READY TO USE IN THE EVENT OF A PRIMARY PUMP FAILURE. CONTRACTOR SHALL BYPASS FLOW FROM THE 15-INCH GRAVITY MAINLINE AND 6-INCH GRAVITY SERVICE. SEE SPECIFICATION SECTION 01535, TEMPORARY BYPASS PUMPING SYSTEM FOR SEWER FLOW CHARACTERISTICS.
3. CONTRACTOR SHALL BURY TEMPORARY BYPASS PIPING AT ALL SIDEWALK, ROAD, WALKWAY, AND DRIVEWAY CROSSINGS.
4. THE OWNER HAS APPLIED FOR AN MWRA 8M PERMIT RELATED TO THE SEWER BYPASS WORK ON MYSTIC STREET.
5. TELEVISION INSPECTION SHALL BE PERFORMED IN "DRY PIPE" DURING TEMPORARY BYPASS OPERATION.
6. CONTRACTOR SHALL PROTECT ALL UTILITIES.
7. ACCESS PIT LOCATIONS IN PLAN ARE APPROXIMATE. CONTRACTOR MAY LOCATE ACCESS PITS AT THEIR DISCRETION FOR PIPE BURSTING OPERATIONS.
8. CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE OF TRAVEL IN EACH DIRECTION DURING CONSTRUCTION ACTIVITIES.
9. TEST PITS SHALL BE PERFORMED TO LOCATE EXISTING UTILITIES, AS APPROVED BY THE ENGINEER.
10. PHOTOS OF EXISTING SIPHON MANHOLES ARE INCLUDED IN APPENDIX C.
11. BORING INFORMATION IS INCLUDED IN APPENDIX D.

**PHASE #10 SANITARY SEWER REHABILITATIONS**  
**BASE BID**  
**MYSTIC STREET SIDEHORN SERVICE CONNECTION**

3

MANHOLE TO MANHOLE CURED-IN-PLACE PIPE ALTERNATE BID NO. 1 ITEM 18a, 18b, 18c							
STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)
FOUNTAIN ROAD	18	022	18	021	8	VC	327
FOUNTAIN ROAD	18	023	18	022	8	VC	326
FOUNTAIN ROAD	18	025	18	023	8	VC	184
FOUNTAIN ROAD	18	025	18	026	8	VC	228
QUINCY STREET	19	005	19	004	8	VC	123
QUINCY STREET	19	006	19	005	8	VC	99
QUINCY STREET	19	007	19	006	8	VC	133
QUINCY STREET	19	008	19	007	8	VC	114
BENJAMIN ROAD	19	008	19	016	6	VC	166
QUINCY STREET	19	009	19	008	8	VC	149
QUINCY STREET	19	010	19	009	8	VC	168
LEHIGH STREET	19	010	19	018	8	VC	65
LEHIGH STREET	19	018	19	017	8	VC	145
BENJAMIN ROAD	19	019	19	008	8	VC	158
BENJAMIN ROAD	19	019	19	020	8	VC	37
TOMAHAWK ROAD	47	036	47	033	8	AC	233
TOMAHAWK ROAD	47	037	47	036	8	AC	215
							0+09, 0+93, 0+99, 1+03, 1+95, 2+09

NOTE:

1. THE INVERT OF MANHOLE 19008 SHALL BE CHIPPED OUT PRIOR TO INSTALLATION OF CURED-IN-PLACE PIPE.

CEMENTITIOUS LINING OF SEWER MANHOLES ALTERNATE BID NO. 1 ITEM 20a				
STREET/LOCATION	SUBAREA	MANHOLE	MATERIAL	APPROXIMATE MANHOLE DEPTH (VF)
FOUNTAIN ROAD	18	022	BRICK	6
FOUNTAIN ROAD	18	023	BRICK	6
FOUNTAIN ROAD	18	025	BRICK	6
QUINCY STREET	19	004	BRICK	8
QUINCY STREET	19	005	BRICK	7
QUINCY STREET	19	006	BRICK	7
QUINCY STREET	19	007	BRICK	7
QUINCY STREET	19	008	BRICK	7
QUINCY STREET	19	009	BRICK	6
LEHIGH STREET	19	010	BRICK	8
BENJAMIN ROAD	19	018	BRICK	5
LAWRENCE LANE	47	033	BRICK	9
TOMAHAWK ROAD	47	036	BRICK	6
TOMAHAWK ROAD	47	037	BRICK	8

#### INSTALL PRECAST SEWER MANHOLE

ALTERNATE BID NO. 1 ITEM 12a, 12b

STREET/LOCATION	SUBAREA	MANHOLE	EXISTING STRUCTURE	APPROXIMATE FOOTAGE FROM DOWNSTREAM SEWER MANHOLE (LF)	APPROXIMATE EXISTING DEPTH TO INVERT (VF)
FOUNTAIN ROAD	18	026	LAMPHOLE	228	5.5
BENJAMIN ROAD	19	016	LAMPHOLE	155	5.5
LEHIGH STREET	19	017	LAMPHOLE	145	7
BENJAMIN ROAD	19	020	LAMPHOLE	193	6

NOTE:

1. APPROXIMATE EXISTING DEPTH (VF) AND LINEAR FOOTAGE (LF) BASED ON TOWN RECORD DRAWINGS.  
2. PRECAST MANHOLE 19017 SHALL BE EXTENDED 10 LINEAR FEET FROM THE END OF THE SEWER PIPE TO INSTALL THE STRUCTURE PAST END OF ADJACENT WATER MAIN.

#### CUT PROTRUDING SEWER SERVICE CONNECTION

ALTERNATE BID NO. 1 ITEM 19a

STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	APPROXIMATE STATION
QUINCY STREET	19	006	19	005	8	VC	99	0+68
BENJAMIN ROAD	19	019	19	020	8	VC	37	0+34

#### GROUT AND PATCH SEWER MANHOLES

ALTERNATE BID NO. 1 ITEM 20b

STREET/LOCATION	SUBAREA	MANHOLE	MATERIAL	APPROXIMATE MANHOLE DEPTH (VF)
GRAY STREET	18	021	LINED	9

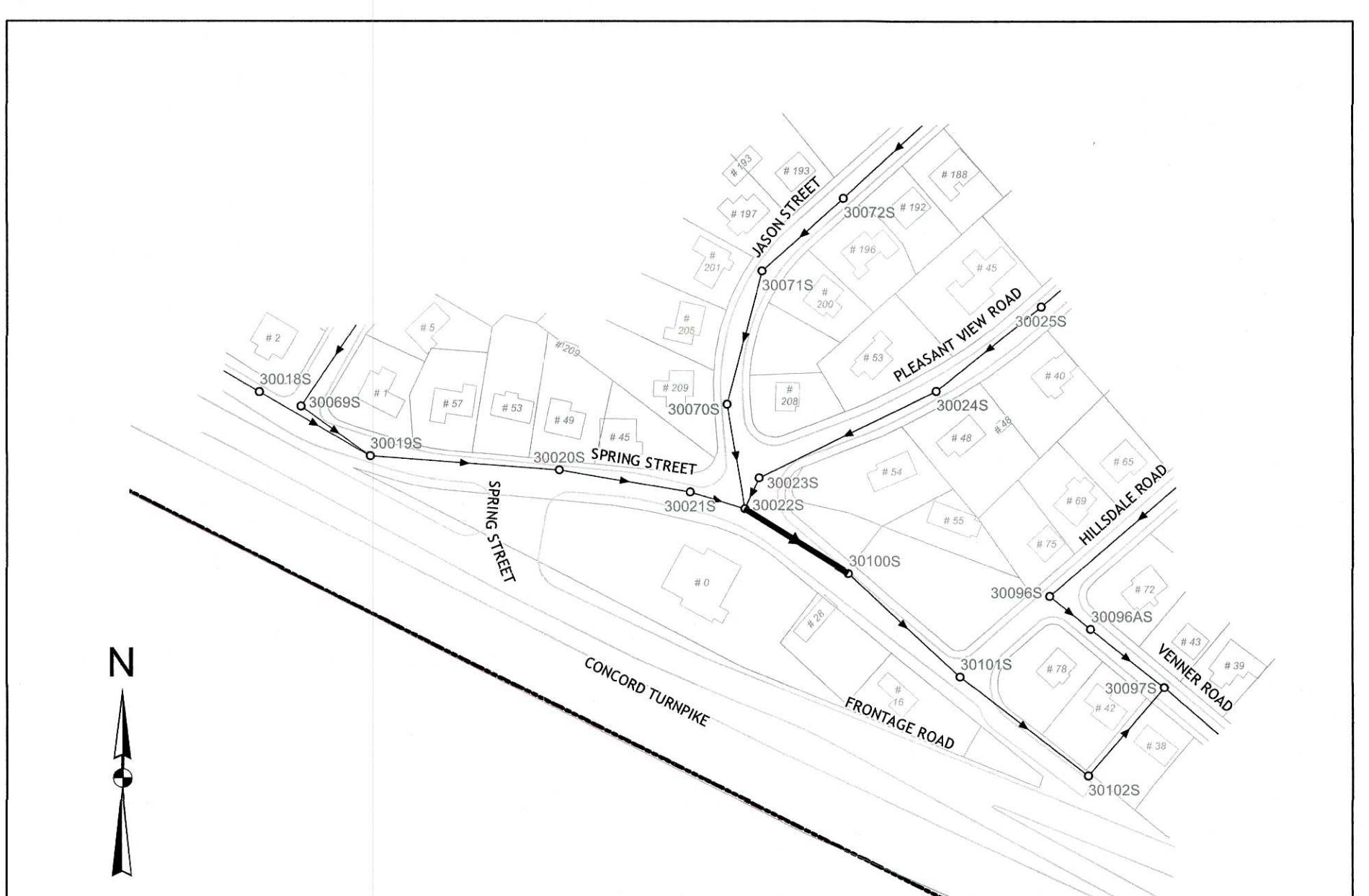
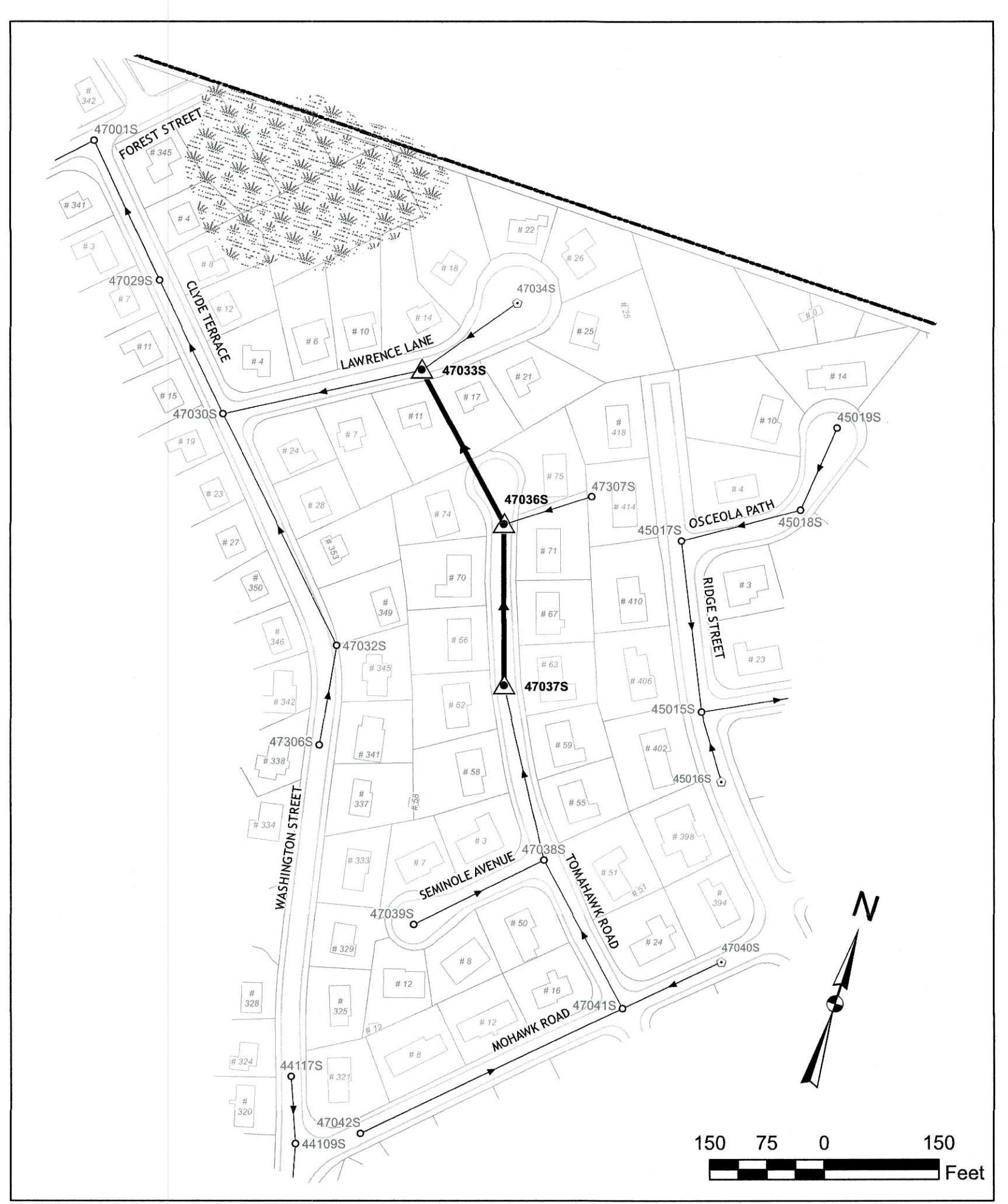
#### INSTALL MANHOLE INFLOW DISH

ALTERNATE BID NO. 1 ITEM 20c

STREET/LOCATION	SUBAREA	MANHOLE
QUINCY STREET	19	004
QUINCY STREET	19	005
QUINCY STREET	19	010
LEHIGH STREET	19	018

150 75 0 150 Feet

CLEANING AND INSPECTION OF SEWERS ALTERNATE BID NO. 1 ITEM 21a							
STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)
SPRING STREET	30	022	30	100	12	VC	158

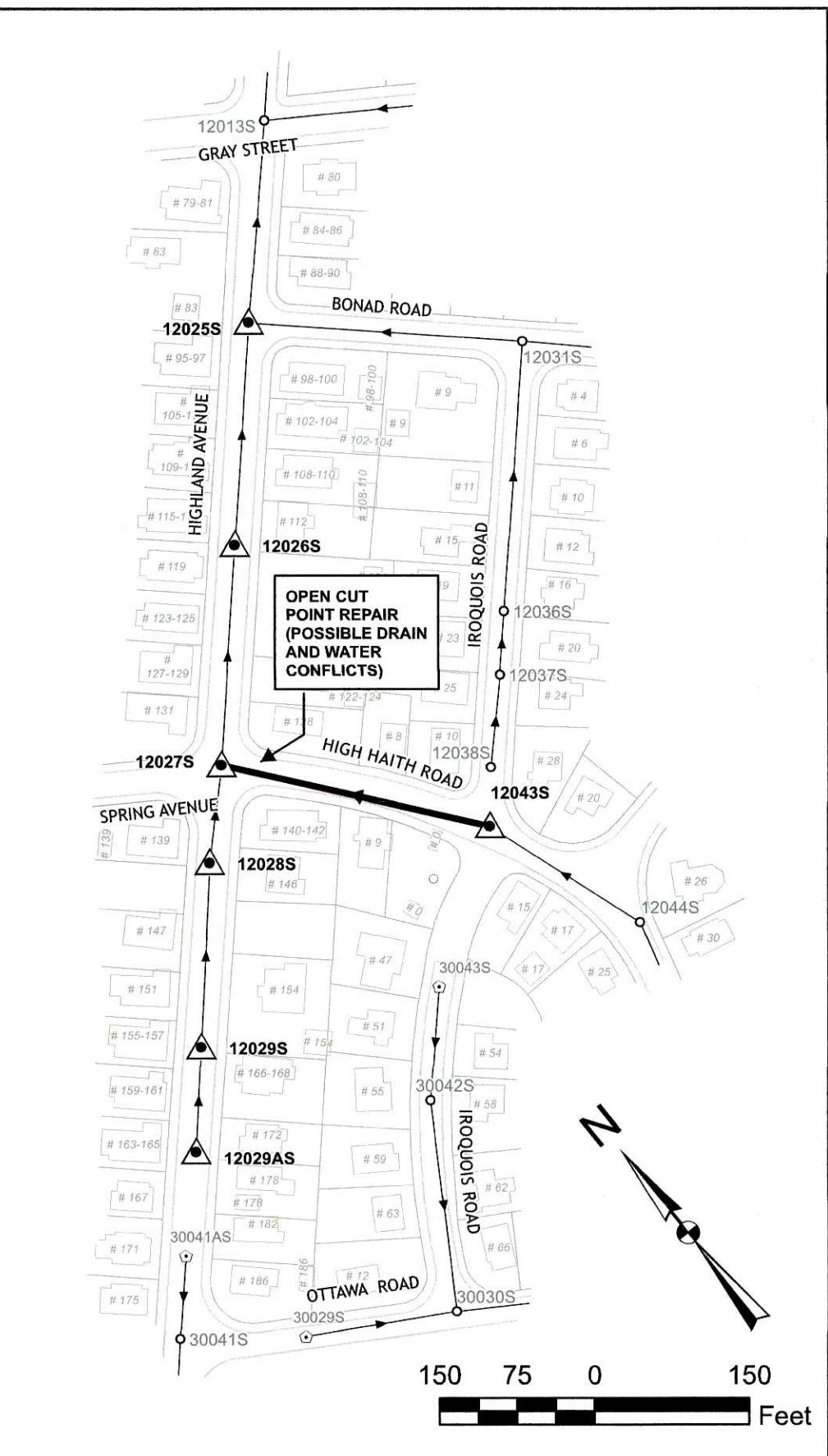


**ALTERNATE BID NO.1 PLANS AND WORK TABLES**

TOWN OF ARLINGTON, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS  
PHASE #10 SANITARY SEWER REHABILITATIONS

**C-5**  
FILE NO. 232-92

SHEET 11 OF 14

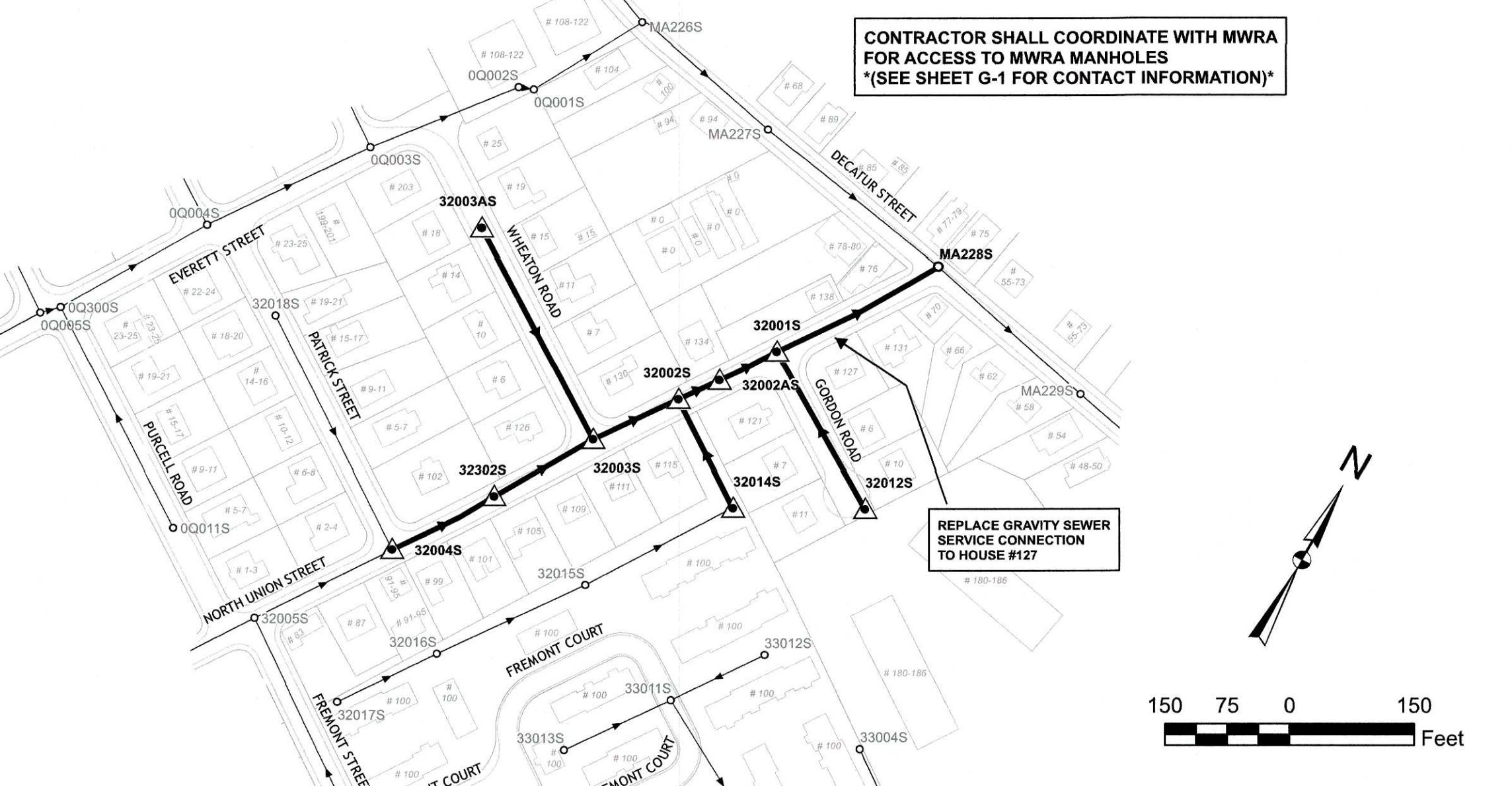


**MANHOLE TO MANHOLE CURED-IN-PLACE PIPE**  
ALTERNATE BID NO. 1 ITEM 18b, 18c

STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	REINSTATE SERVICE
HIGH HAITH ROAD	12	043	12	027	8	VC	271	0+53, 0+72, 1+07, 1+42, 1+92
GORDON ROAD	32	001	32	012	8	AC	217	1+03, 1+06, 1+60, 1+70
NORTH UNION STREET	32	001	MA	228	8	VC	224	0+79, 1+02, 1+44
NORTH UNION STREET	32	002	A	32	001	8	VC	82
NORTH UNION STREET	32	002	32	002	A	8	VC	59
NORTH UNION STREET	32	002	32	014	8	VC	151	NONE
NORTH UNION STREET	32	003	32	002	8	VC	111	0+22, 0+76, 0+80
WHEATON ROAD	32	003	32	003	A	8	VC	287
NORTH UNION STREET	32	004	32	302	8	VC	137	0+36, 0+98, 1+00
NORTH UNION STREET	32	302	32	003	8	VC	135	0+35, 0+92, 0+99
CUTTER HILL ROAD	37	022	37	023	8	VC	113	0+94
SUMMER STREET	37	023	37	011	8	VC	24	NONE
SUMMER STREET	37	024	37	011	8	VC	41	NONE
MILL STREET	37	024	37	301	8	VC	222	1+00, 1+03, 1+64, 2+06

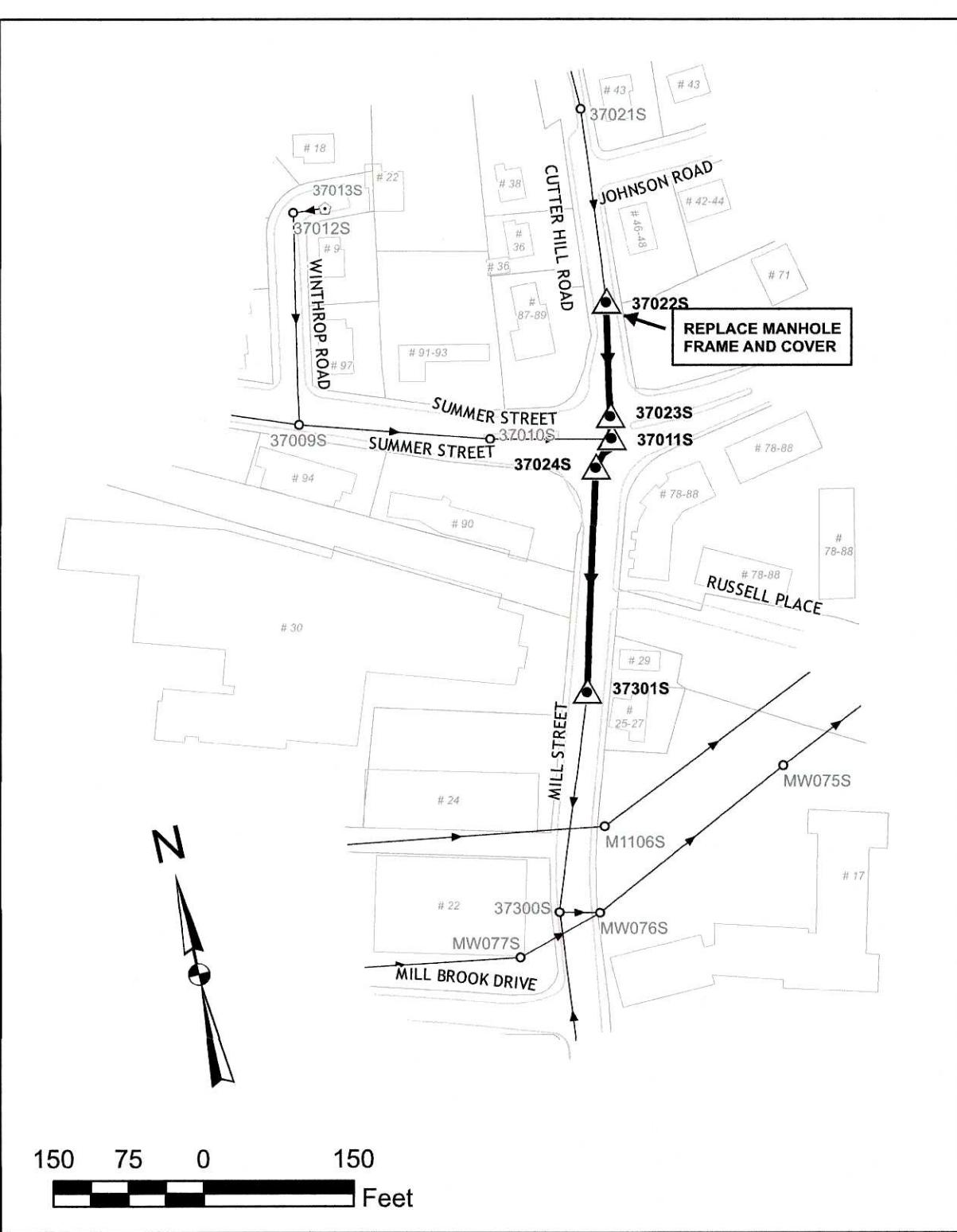
**CEMENTITIOUS LINING OF SEWER MANHOLES**  
ALTERNATE BID NO. 1 ITEM 20a

STREET/LOCATION	SUBAREA	MANHOLE	MATERIAL	APPROXIMATE MANHOLE DEPTH (VF)
HIGHLAND AVENUE	12	025	BRICK	8
HIGHLAND AVENUE	12	026	BRICK	6
HIGHLAND AVENUE	12	027	BRICK	8
HIGHLAND AVENUE	12	028	BRICK	8
HIGHLAND AVENUE	12	029	A BRICK	4
HIGHLAND AVENUE	12	029	BRICK	7
HIGH HAITH ROAD	12	043	BRICK	9
NORTH UNION STREET	32	001	BRICK	8
NORTH UNION STREET	32	002	A BRICK	6
NORTH UNION STREET	32	002	BRICK	6
WHEATON ROAD	32	003	A BRICK	6
NORTH UNION STREET	32	003	BRICK	6
NORTH UNION STREET	32	004	BRICK	8
GORDON ROAD	32	012	BRICK	5
FREMONT COURT	32	014	BRICK	9
NORTH UNION STREET	32	302	BRICK	7
MILL STREET	37	011	BRICK	8
CUTTER HILL ROAD	37	022	BRICK	9
MILL STREET	37	023	BRICK	7
MILL STREET	37	024	BRICK	8
MILL STREET	37	301	BRICK	7



**INSTALL MANHOLE INFLOW DISH**  
ALTERNATE BID NO. 1 ITEM 20c

STREET/LOCATION	SUBAREA	MANHOLE
HIGHLAND AVENUE	12	027
HIGHLAND AVENUE	12	029
CUTTER HILL ROAD	37	022



**MAINLINE CHEMICAL ROOT TREATMENT**  
ALTERNATE BID NO. 1 ITEM 17a

STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	
HIGH HAITH ROAD	12	043	12	027	8	VC	271	
NORTH UNION STREET	32	002	32	014	8	VC	151	
WHEATON ROAD	32	003	32	003	A	8	VC	287

**REPLACE GRAVITY SEWER SERVICE CONNECTION**  
ALTERNATE BID NO. 1 ITEM 11a, 11b

STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	EXISTING MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	APPROXIMATE STATION	APPROXIMATE CONNECTION	APPROXIMATE DEPTH (VF)
NORTH UNION STREET	32	001	MA	228	8	VC	224	0+79	HSE #127	7.5

**OPEN CUT POINT REPAIR OF GRAVITY SEWER**  
ALTERNATE BID NO. 1 ITEM 10a

STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	APPROXIMATE STATION	TO APPROXIMATE STATION	REINSTATE SERVICE
HIGH HAITH ROAD	12	043	12	027	8	VC	271	2+54	2+61	NONE

**CUT PROTRUDING SEWER SERVICE CONNECTION**  
ALTERNATE BID NO. 1 ITEM 19a

STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	APPROXIMATE STATION
WHEATON ROAD	32	003	32	003	A	8	VC	287
NORTH UNION STREET	32	302	32	003		8	VC	135
MILL STREET	37	024	37	301		8	VC	222
MILL STREET	37	024	37	301		8	VC	222



150 75 0 150  
Feet

CEMENTITIOUS LINING OF SEWER MANHOLES  
ALTERNATE BID NO. 2 ITEM 26a

STREET/LOCATION	SUBAREA	MANHOLE	MATERIAL	APPROXIMATE MANHOLE DEPTH (VF)
FAIRMONT STREET	07	007	BRICK	6
ALEWIFE GREENWAY BIKE PATH	BA	005	BRICK	10
THORNDIKE STREET	BA	009	BRICK	8

RAISE MANHOLE FRAME AND COVER TO GRADE  
ALTERNATE BID NO. 2 ITEM 26b

STREET/LOCATION	SUBAREA	MANHOLE	MATERIAL
ALEWIFE GREENWAY BIKE PATH	BA	005	BRICK

SERVICE CONNECTION REHABILITATION  
ALTERNATE BID NO. 2 ITEM 25a, 25b

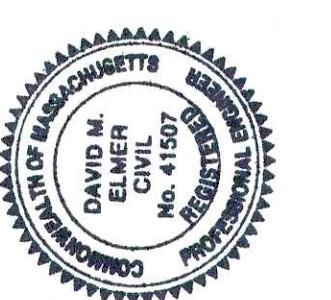
STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	APPROXIMATE STATION
THORNDIKE STREET	BA	009	BA	008	8	VC	255	0+58, 0+95, 0+97, 1+56, 1+78, 2+12

MANHOLE TO MANHOLE CURED-IN-PLACE PIPE  
ALTERNATE BID NO. 2 ITEM 24a, 24b

STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	REINSTATE SERVICE
ALEWIFE GREENWAY BIKE PATH	BA	003	M2	005	18	VC	37	NONE
ALEWIFE GREENWAY BIKE PATH	BA	005	BA	003	18	VC	100	0+50
ALEWIFE GREENWAY BIKE PATH	BA	006	BA	005	18	VC	90	NONE
ALEWIFE GREENWAY BIKE PATH	BA	007	BA	006	18	VC	144	NONE
ALEWIFE GREENWAY BIKE PATH	BA	008	BA	007	18	VC	87	0+02
ALEWIFE GREENWAY BIKE PATH	BA	011	BA	008	18	VC	48	NONE
ALEWIFE GREENWAY BIKE PATH	BA	012	BA	011	18	VC	146	NONE
ALEWIFE GREENWAY BIKE PATH	BA	013	BA	012	18	VC	139	NONE
ALEWIFE GREENWAY BIKE PATH	BA	014	BA	013	18	VC	104	NONE
ALEWIFE GREENWAY BIKE PATH	BA	015	BA	014	18	VC	39	NONE
ALEWIFE GREENWAY BIKE PATH	BA	016	BA	015	18	VC	141	NONE

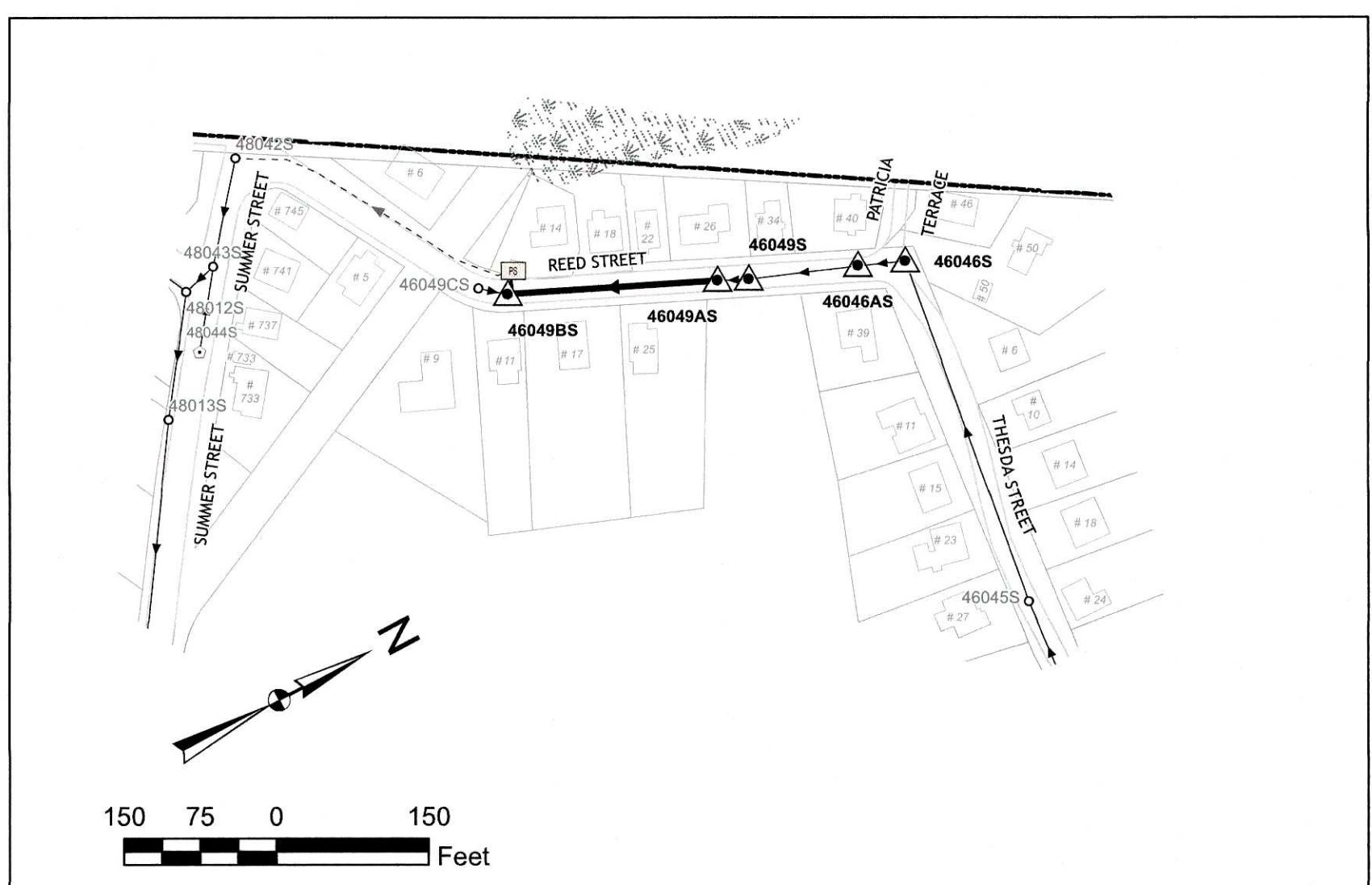
ALTERNATE BID NO. 2 PLANS AND WORK TABLES

TOWN OF ARLINGTON, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS  
PHASE #10 SANITARY SEWER REHABILITATIONS

DATE <i>6/21/18</i>							
REGISTERED PROFESSIONAL ENGINEER	<i>David M. Elmer</i>						
 <p>DAVID M. ELMER CIVIL PROFESSIONAL ENGINEER MASSACHUSETTS RECEIVED JULY 19 1997 RECEIVED JULY 19 1997</p>							
GIS NO.	SEE PATH	CONTRACT:	18-32	JOB NO.	2180077	DR BY	ZSO
FILE NO.	232-91	NOTED		DSN BY	JMC	CHK BY	JRH
APPR BY DME							

*C-6*

SHEET 12 OF 14



## **GROUT AND PATCH SEWER MANHOLES**

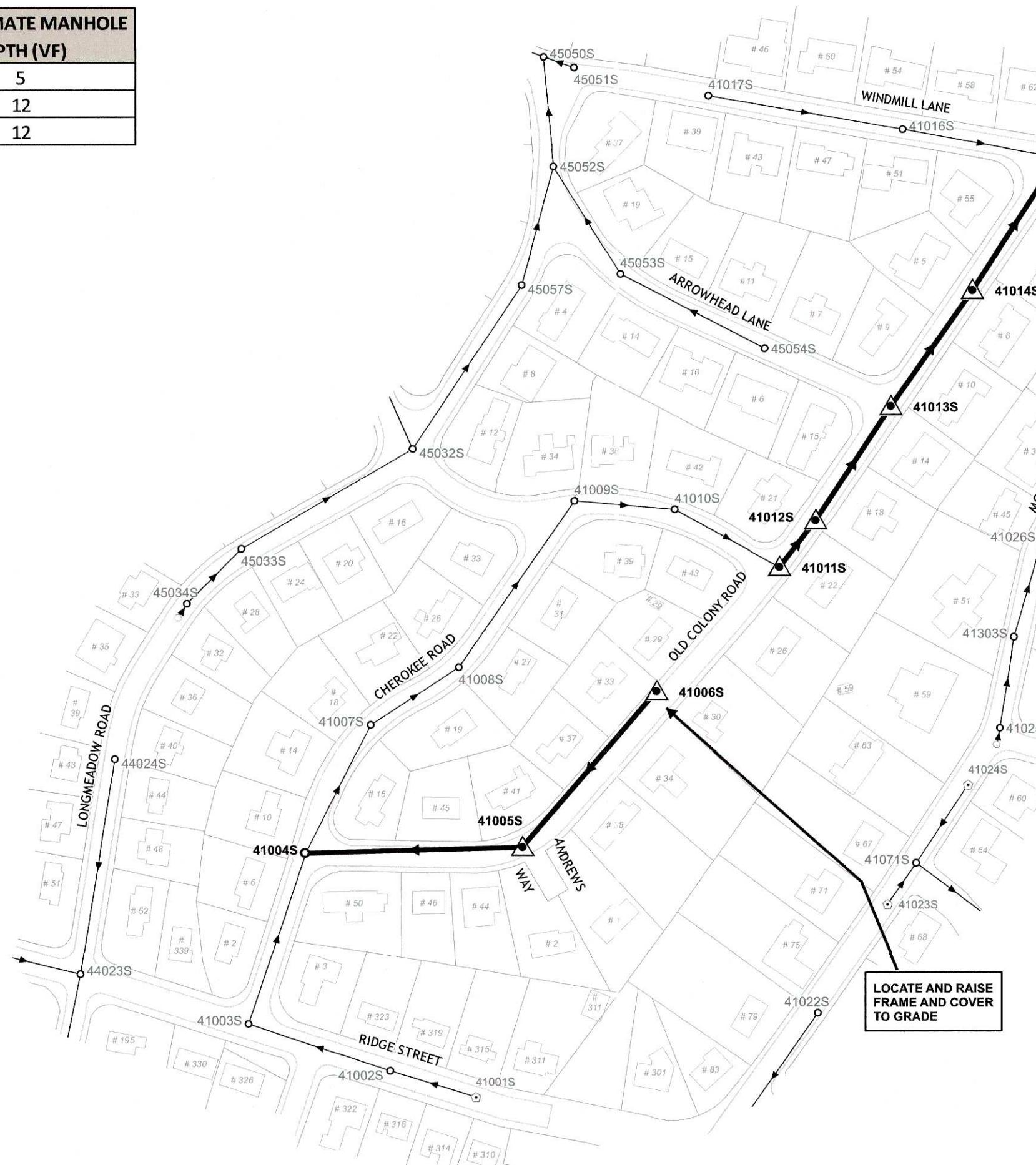
**ALTERNATE BID NO. 3 ITEM 32b**

REED STREET NO. 0747-002					APPROXIMATE MANHOLE DEPTH (VF)
STREET/LOCATION	SUBAREA	MANHOLE	MATERIAL		APPROXIMATE MANHOLE DEPTH (VF)
REED STREET	46	046	A	PRECAST	5
REED STREET	46	049	A	PRECAST	12
REED STREET	46	049	B	PRECAST	12

#### RAISE MANHOLE FRAME AND COVER TO GRADE

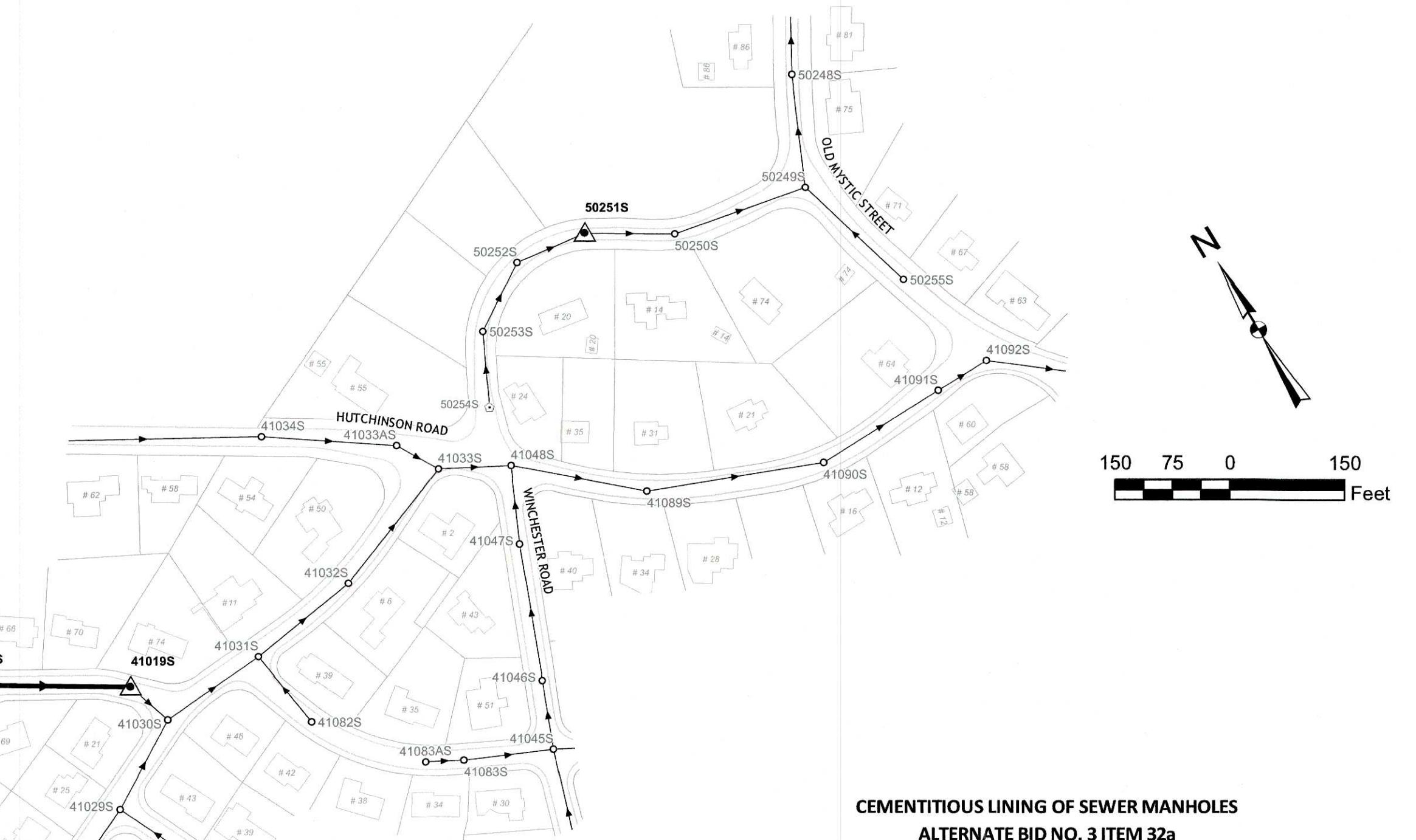
**ALTERNATE BID NO. 3 ITEM 32c**

ALTERNATE BID NO. 3 ITEM 32c				
STREET/LOCATION	SUBAREA	MANHOLE		MATERIAL
OLD COLONY ROAD	41	006		BRICK



**STRUCTURAL MANHOLE TO MANHOLE CURED-IN-PLACE PIPE**  
**ALTERNATE BID NO. 3 ITEM 31a, 31b**

ALTERNATE BID NO. 3 ITEM 31a, 31b								
STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)	REINSTATE SERVICE
OLD COLONY ROAD	41	005	41	006	8	VC	262	0+28, 1+01, 1+27, 1+68, 2+17, 2+40, 2+44



## CEMENTITIOUS LINING OF SEWER MANHOLES

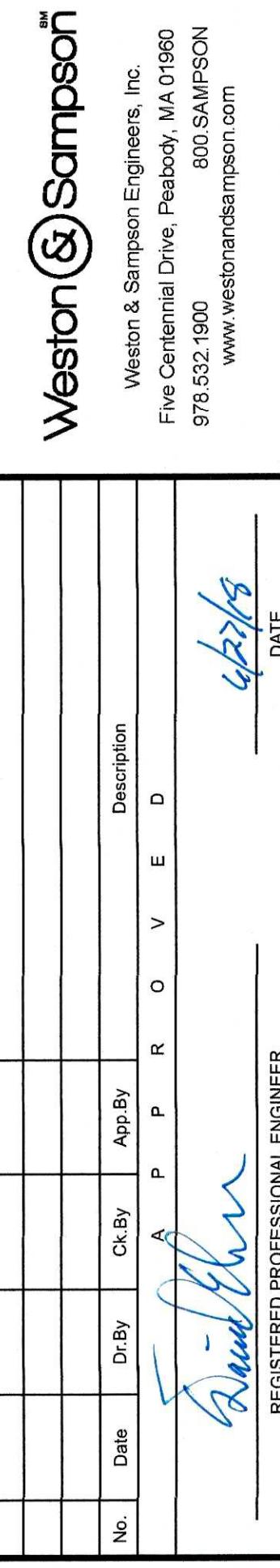
**ALTERNATE BID NO. 3 ITEM 32a**

ALTERNATE BID NO. 3 ITEM 32a				
STREET/LOCATION	SUBAREA	MANHOLE	MATERIAL	APPROXIMATE MANHOLE DEPTH (VF)
OLD COLONY ROAD	41	005	BRICK	7
OLD COLONY ROAD	41	006	BRICK	7
OLD COLONY ROAD	41	011	BRICK	6
OLD COLONY ROAD	41	012	BRICK	6
OLD COLONY ROAD	41	013	BRICK	7
OLD COLONY ROAD	41	014	BRICK	7
WINDMILL LANE	41	015	BRICK	7
WINDMILL LANE	41	019	BRICK	8
REED STREET	46	046	BRICK	6
REED STREET	46	049	BRICK	7
WINCHESTER ROAD	50	251	BRICK	9

## MAINLINE CHEMICAL ROOT TREATMENT

**ALTERNATE BID NO. 3 ITEM 29a**

ALTERNATE BID NO. 3 ITEM 29a							
STREET/LOCATION	SUBAREA	MANHOLE	TO SUBAREA	TO MANHOLE	PIPE DIA (IN)	MATERIAL	APPROXIMATE MH TO MH LENGTH (LF)
OLD COLONY ROAD	41	005	41	006	8	VC	262



**TOWN OF ARLINGTON, MASSACHUSETTS**  
**DEPARTMENT OF PUBLIC WORKS**

**PHASE #10 SANITARY SEWER REHABILITATIONS**

**ALTERNATE BID NO. 3 PLANS AND WORK TABLES**

